



# **AdminStudio 2016**

## Evaluation Guide

# Legal Information

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# AdminStudio 2016 Evaluation Guide

AdminStudio Suite 2016 powers an enterprise's daily application readiness process for inventory, rationalization, packaging, and compatibility testing of physical, virtual, and mobile applications, ensuring faster service delivery and predictable deployment.

AdminStudio's automation, integration with leading software distribution tools, and workflow capabilities help companies streamline day-to-day application packaging operations and reduce the time and cost of application virtualization, Windows migrations and mobile application deployment.

Trusted by more than 10,000 organizations, AdminStudio Suite eliminates the need for multiple standalone tools and provides an integrated solution that is adaptive and scalable to changing business priorities.

You can use this Evaluation Guide to quickly learn how to use AdminStudio to prepare Windows Installer, virtual applications, web applications, Mac OS X desktop applications, and mobile applications for deployment. This Evaluation Guide is organized into the following sections:

**Table 1 • AdminStudio 2016 Evaluation Guide**

Section	Description
<b>Getting Started</b>	Explains what is included in this Evaluation Guide and how to get started.
<b>What's New in AdminStudio 2016</b>	Provides an overview of the new features in AdminStudio 2016.
<b>Setting Up AdminStudio Infrastructure</b>	Explains how to perform the one-time set-up tasks that you need to complete prior to using AdminStudio including creating an Application Catalog, configuring a virtual machine, configuring e-mail settings, and specifying server connection settings.
<b>Migrating to Windows Installer</b>	Explains how to convert a sample setup to a Windows Installer package, import it into the Application Catalog, test it for operating system compatibility, best practices, and conflicts, and then prepare it for distribution.

**Table 1 •** AdminStudio 2016 Evaluation Guide

Section	Description
<b>Migrating to Application Virtualization</b>	Explains how to use the Automated Application Converter to convert Windows Installer packages to virtual packages, and then test and distribute the virtual packages.
<b>Testing for Application Compatibility</b>	Explains how to use Application Manager to test packages for compatibility with Microsoft Windows 7, Windows 8, Windows 10, Windows Server 2008 R2, and Windows Server 2012 platforms, as well as to test web applications for compatibility with Internet Explorer 9/10/11 and Microsoft Edge.

## Getting Started

This section explains what is included in this Evaluation Guide and how to get started:

- [About Evaluating AdminStudio](#)
- [Purpose of Evaluation Guide](#)
- [Organization of Evaluation Guide](#)
- [Evaluation Guide Data Files](#)

## About Evaluating AdminStudio

You can choose to evaluate AdminStudio for 21 days. By clicking **Continue to Evaluate AdminStudio** dialog box that opens when you launch AdminStudio, you can begin evaluating the AdminStudio Enterprise Edition client tools.

Information about evaluating the AdminStudio client tools includes the following topics:

- [AdminStudio Client Tools Evaluation Restrictions](#)
- [Evaluating AdminStudio's Microsoft App-V Support](#)
- [Evaluating the Automated Application Converter "Multiple Application" Option](#)

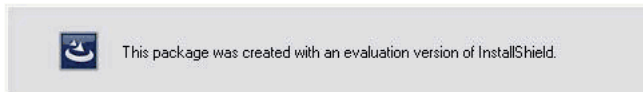
### AdminStudio Client Tools Evaluation Restrictions

When you run AdminStudio in trial/evaluation mode, all of its features are fully available, with the following restrictions:

- **Can create only one Application Catalog**—You are permitted to create only one Application Catalog, and it must be named AdminStudio Evaluation Catalog.
- **Ten package import limit**—Only 10 total packages (of one or more deployment types) can be imported into the Application Catalog.
- **Package deletion not permitted**—After you import a package into the Application Catalog, you are not permitted to delete it.
- **AdminStudio Platform API support is disabled**—All platform support is disabled.

## Evaluating AdminStudio's Microsoft App-V Support

While evaluating the AdminStudio Enterprise Edition client tools, you will be able to convert a Windows Installer package to an App-V application using the Automated Application Converter, Conversion Wizard, Repackager, and the InstallShield App-V Assistant. However, an App-V application built using an evaluation version of AdminStudio will display the following message every time it is launched:



**Figure 1:** Evaluation Version Message

After purchasing the AdminStudio Virtualization Pack, you will be able to remove this message by rebuilding the App-V application.

## Evaluating the Automated Application Converter “Multiple Application” Option

The Multiple Application option of Automated Application Converter is only available when you purchase the Virtualization Pack with AdminStudio Enterprise Edition.



**Note** • If you purchase the Virtualization Pack with AdminStudio Standard or Professional Editions, you will only be able to convert one package at a time, using one virtual machine.

When using an evaluation version of AdminStudio, you will be able to use Automated Application Converter to convert a directory full of Windows Installer packages into individual virtual packages, but the conversion will be limited to three packages per run, using only one virtual machine. Therefore, only the first three packages that Automated Application Converter encounters will be converted to virtual applications.

## Purpose of Evaluation Guide



The purpose of this Evaluation Guide is to help system administrators and other reviewers learn how to quickly get started using AdminStudio to prepare Windows Installer and virtual applications for deployment. By performing the exercises in this Evaluation Guide using the provided data files, you will learn how to:

- Create an Application Catalog
- Repackage a sample package
- Import packages into the Application Catalog
- Test Windows Installer packages, App-V packages, and web applications
- Configure a virtual machine for use in automated repackaging
- Convert Windows Installer packages to virtual applications
- Distribute Windows Installer and App-V packages
- Perform operating system compatibility and browser compatibility testing



## Organization of Evaluation Guide

This Evaluation Guide provides exercises that guide you through performing the following key procedures:

**Table 2 •** Evaluation Exercises

Procedure		Procedure
	<b>Setting Up AdminStudio Infrastructure</b>	<p>In these set of exercises, you will perform the one-time setup tasks that are necessary to get started using AdminStudio:</p> <ul style="list-style-type: none"><li>• <a href="#">Creating an Application Catalog</a></li><li>• <a href="#">Configuring a Virtual Machine</a></li><li>• <a href="#">Setting E-Mail Notification Settings</a></li><li>• <a href="#">Entering Server/Database Connection Settings</a></li></ul>
	<b>Migrating to Windows Installer</b>	<p>In this set of exercises, you will migrate a sample setup (such as an <b>.exe</b> file) to a deployable Windows Installer package (<b>.msi</b>):</p> <ul style="list-style-type: none"><li>• <a href="#">Repackaging a Sample Package</a></li><li>• <a href="#">Importing Packages into the Application Catalog</a></li><li>• <a href="#">Testing a Repackaged Application and Resolving Issues</a></li><li>• <a href="#">Distributing a Repackaged Application</a></li></ul>

**Table 2 •** Evaluation Exercises

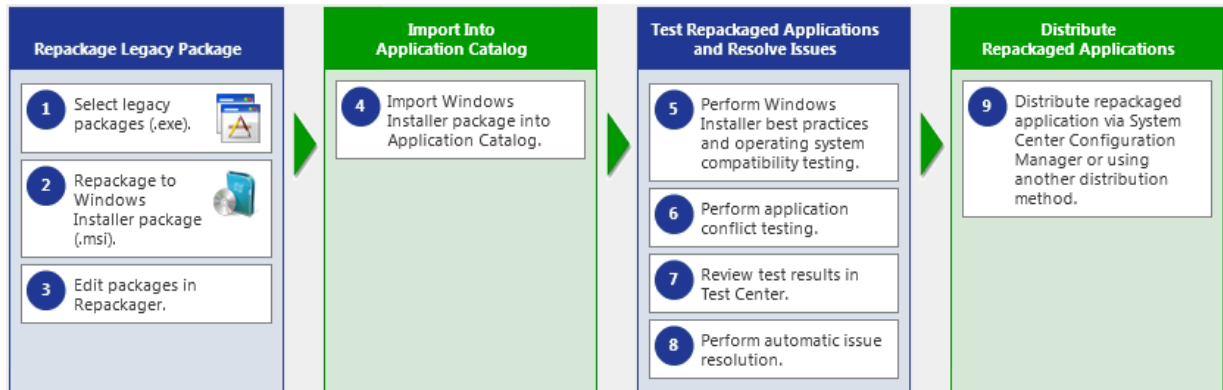
Procedure	Procedure
 <b>Migrating to Application Virtualization</b>	<p>In this set of exercises, you will migrate a set of applications into virtual applications that are ready for deployment:</p> <ul style="list-style-type: none"> <li>• <a href="#">Identifying Packages to Virtualize</a></li> <li>• <a href="#">Converting to Virtual Formats</a></li> <li>• <a href="#">Testing and Distributing Converted Packages</a></li> </ul>
 <b>Testing for Application Compatibility</b>	<p>In this set of exercises, you will test Windows Installer packages for application readiness on Microsoft Windows (7, 8, 10), and Windows Server (2008 R2 and 2012). You will also test web applications for compatibility with Internet Explorer 9/10/11 and Microsoft Edge.</p> <ul style="list-style-type: none"> <li>• <a href="#">Importing Packages, Web Applications, and Mobile Apps</a></li> <li>• <a href="#">Selecting Tests to Run and Setting Default Fix Option</a></li> <li>• <a href="#">Performing Testing and Viewing Results</a></li> </ul>

These four main procedures are also featured on AdminStudio's Start Page.



**Figure 2:** AdminStudio Start Page

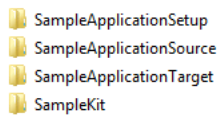
Each subtab of the Start Page includes a flowchart that lists the steps in each procedure. For example, the following flowchart is displayed on the **Migrate to Windows Installer** tab:



**Figure 3:** Migrate to Windows Installer Tab of AdminStudio Start Page

## Evaluation Guide Data Files

To perform the exercises in the AdminStudio Evaluation Guide, you will be using the sample data that is provided in the **AS2016EvalGuideDataFiles.zip** file. These data files are organized into the following directories:



**Figure 4:** Directory Structure of AdminStudio Evaluation Guide Data Files

These data files demonstrate the recommended organizational structure that you should use when you want to import a directory of packages into the Application Catalog:

- **One root directory**—Organize the packages you want to import in one root directory (**AS2016EvalGuideDataFiles** in this example).
- **Each application in a subdirectory**—Each application should be stored in its own first level subdirectory (such as **SampleKit** or **SampleApplicationTarget**).
- **Each deployment type in a sub-subdirectory**—Each deployment type should be stored in its own sub-subdirectory (**AppV**, **MSI**, etc.) of the application directory.

Unzip this data file and place its contents in a location accessible to your installation of AdminStudio, such as:

C:\AS2016EvalGuideDataFiles

# What's New in AdminStudio 2016

This section lists the new features that are included in AdminStudio 2016:

- Import and Test Mac OS X Desktop Applications
- Ability to Inspect and Test Complex Installer Executables
- Improved FlexNet Manager Suite Integration
- Enhanced Automation Capabilities to Streamline Application Import and Testing
- Automated Application Converter Enhancements
- New Wizard to Install and Launch Windows Installer Packages on a Virtual Machine for Testing
- Productivity Shortcuts
- New System Center Configuration Manager Settings View

# Import and Test Mac OS X Desktop Applications

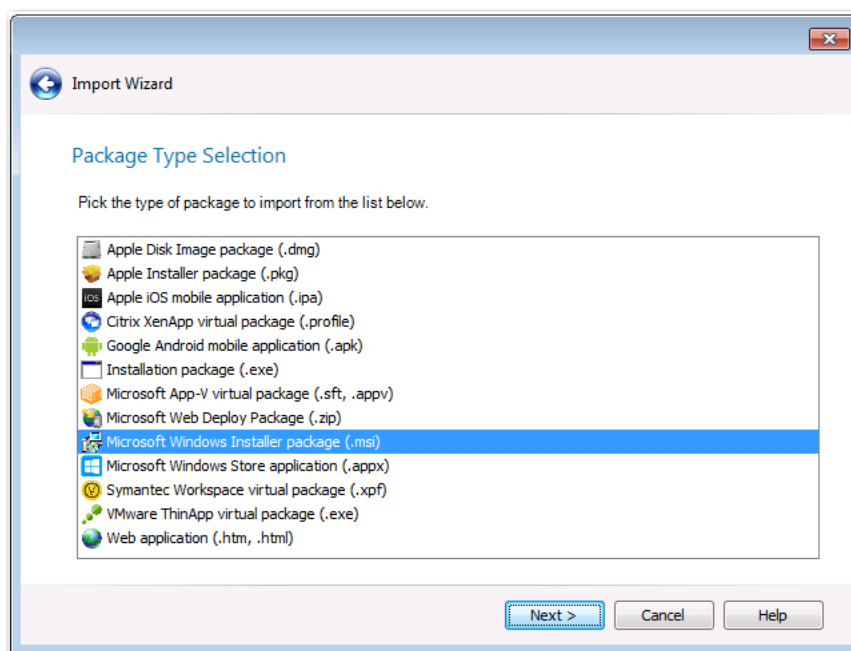
In its 2016 release, AdminStudio is extending its application readiness capabilities to Mac OS X desktop applications. You can now import Mac OS X applications into the Application Catalog for testing and distribution to a JAMF Casper Suite server. Additionally, because App Portal also supports Casper, when you publish DMG and PKG files to Casper, you can choose to automatically generate App Portal catalog items for those packages.

- [Import Mac OS X Desktop Applications \(DMG and PKG Files\)](#)
- [Import Links to OS X Desktop Applications in the Mac App Store](#)
- [Test Mac OS X Desktop Applications](#)
- [Publish Mac OS X Desktop Applications to Casper With Integration to App Portal](#)

## Import Mac OS X Desktop Applications (DMG and PKG Files)

In AdminStudio 2016, you can import Apple disk images (**.dmg**) and Mac OS X installer packages (**.pkg**) into the Application Catalog for inspection, customization, testing, and distribution to Casper.

The **Package Type Selection** panel of the Import Wizard now includes two new selections to support the import of Mac OS X desktop applications into the Application Catalog.



**Figure 5:** New Apple Installer Packages on Package Type Selection Panel

The following are the two new package types that were added to the **Package Type Selection** panel to support Mac OS X desktop applications:

- **Apple Disk Image package (.dmg)**—When you double-click a **.dmg** file, an Apple disk image is “mounted” as a volume within the Finder. To install the application, you usually drag the application icon from the disk image into the Applications folder.
- **Apple installer package (.pkg)**—Double-clicking a **.pkg** file launches the Apple installer application, where the package is installed by proceeding through an installation wizard.

You can import these newly supported package types as single applications, part of a batch import of applications in a selected folder, or as part of a monitored directory using the Package Auto Import feature. You can also publish these package types to a JAMF Casper Suite server.

## Inspecting Bundled Packages

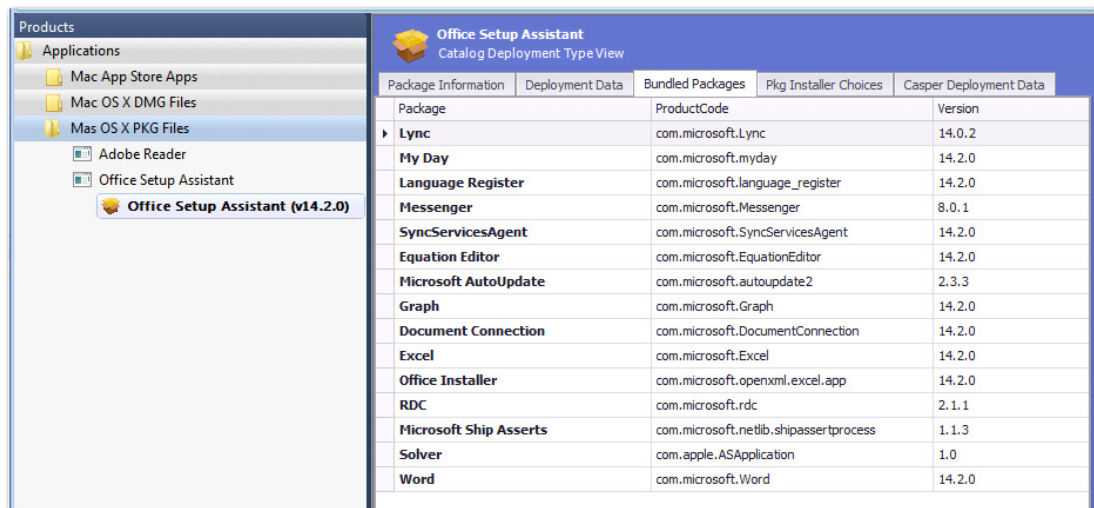
Both **.dmg** and **.pkg** files can contain child **.dmg** or **.pkg** files bundled within the file. These bundled packages can be viewed on the imported package’s **Bundled Packages** tab of the **Catalog Deployment Type View**. For more information, see [Inspect Bundled Applications in DMG and PKG Installers](#).

## Customizing Installer Settings

The installer settings of a **.pkg** file can be modified on the **Pkg Installer Choices** tab of the **Catalog Deployment Type View**. For more information, see [Customize Apple Installer Package PKG Installer Settings](#).

## Inspect Bundled Applications in DMG and PKG Installers

If an Apple disk image package (**.dmg**) or Apple installer package (**.pkg**) contains child packages bundled within it, those child packages will be listed on the new **Bundled Packages** tab of the **Catalog Deployment Type** view.



**Figure 6:** Bundled Packages Tab of Catalog Deployment Type View for Apple Installer Package (.pkg)

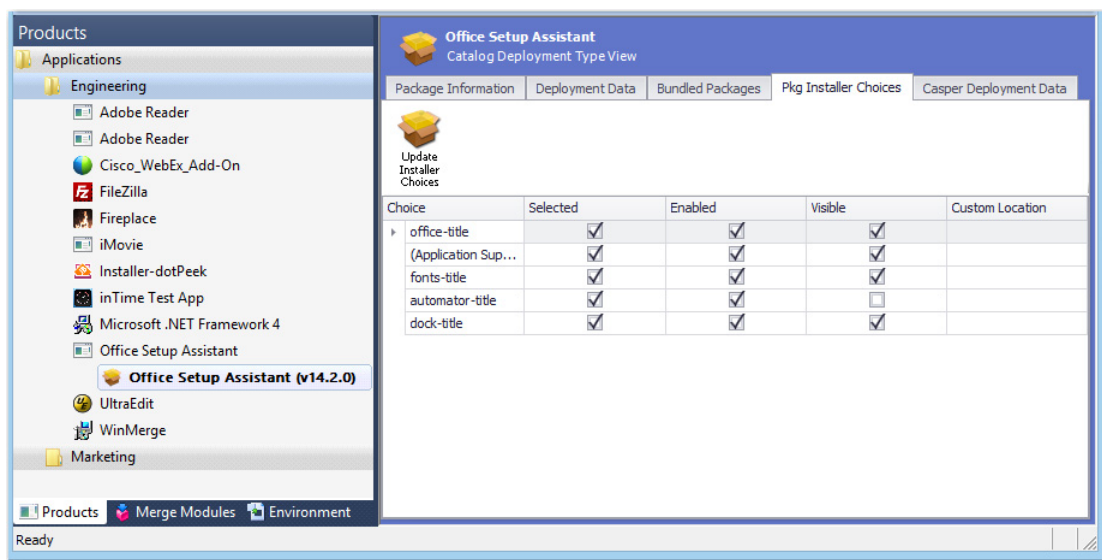
When the imported **.dmg** or **.pkg** file is tested, each of these child packages is also tested, and the combined test results are listed in Test Center, as described in [Combined Testing of Child Applications of DMG and PKG Files](#).



**Note** • AdminStudio will only inspect Mac OS X package files one level deep. If a **.dmg** or **.pkg** package contains another **.dmg** or **.pkg** package bundled within it, that child package will not be inspected.

## Customize Apple Installer Package PKG Installer Settings

Just as a Windows Installer package can be customized by adding a transform file, an Apple installer package (**.pkg**) can be customized by editing an XML file that is embedded within it. In AdminStudio 2016, the settings defined in a **.pkg** file's embedded XML file are displayed on the new **PKG Installer Choices** tab of the package's **Catalog Deployment Type** view.



**Figure 7:** New PKG Installer Choices Tab of Catalog Deployment Type View for Mac PKG Installer

The **PKG Installer Choices** tab lists all settings that have been defined in that **.pkg** file's embedded XML settings file by the application manufacturer. To customize this installer (such as to prepare it for silent installation by Casper), you can make changes to the settings on this tab and then click **Update Installer Choices**. AdminStudio will then save your changes in the package's embedded settings file.

For each installer **Choice** listed on the **PKG Installer Choices** tab, the following options are available:

Option	Description
<b>Visible</b>	This option can be either selected or not selected: <ul style="list-style-type: none"><li>● <b>Selected</b>—This choice setting will be displayed in the installer.</li><li>● <b>Not selected</b>—This choice setting will not be displayed in the installer.</li></ul>
<b>Selected</b>	This option can be either selected or not selected: <ul style="list-style-type: none"><li>● <b>Selected</b>—If this choice setting is displayed in the installer, its check box will be checked.</li><li>● <b>Not selected</b>—If this choice setting is displayed in the installer, its check box will not be checked.</li></ul>
<b>Enabled</b>	This option can be either selected or not selected: <ul style="list-style-type: none"><li>● <b>Selected</b>—If this choice setting is displayed in the installer, it will be enabled.</li><li>● <b>Not selected</b>—If this choice setting is displayed in the installer, it will be disabled.</li></ul>
<b>Custom Location</b>	If this choice setting explicitly permits the user to specify a user-defined installation path, the path entered in this field would populate the user-defined installation path when it is displayed in the installer.



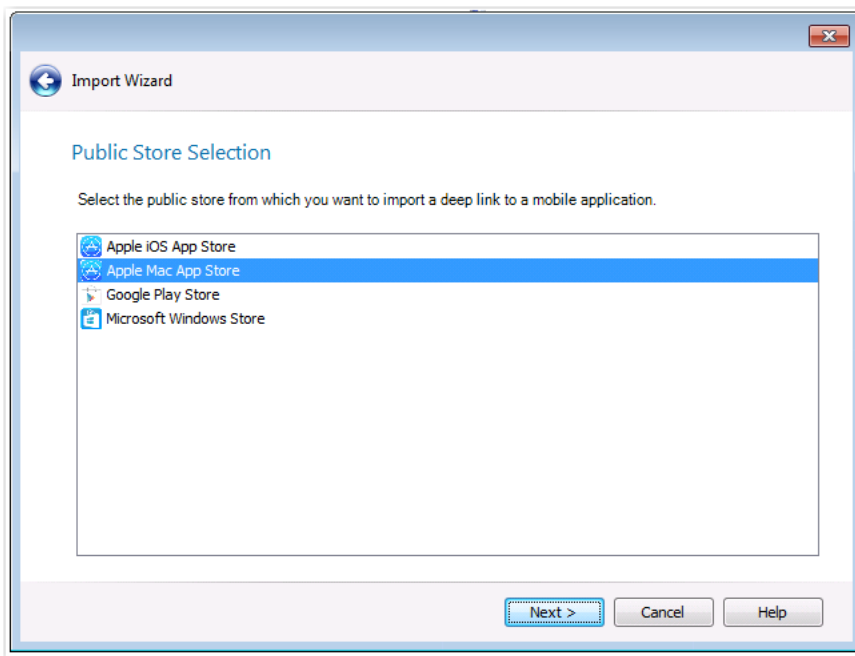
**Note** • *Modifying the installer choices of an Apple installer package does not affect the digital signature of the package.*

## Import Links to OS X Desktop Applications in the Mac App Store

In previous releases, you could import links to iOS mobile apps in the iTunes App Store. To do this, you selected, **Apple Store** on the **Public Store Selection** panel of the Import Wizard.

In AdminStudio 2016, in addition to being able to import links to iOS mobile apps in the iTunes App Store, you can now also import links to Mac OS X desktop applications in the Mac App Store. On the **Public Store Selection** panel of the Import Wizard, you now have two different Apple public store options:

- **Apple iOS App Store** (for iOS mobile apps)
- **Apple Mac App Store** (for OS X desktop apps)



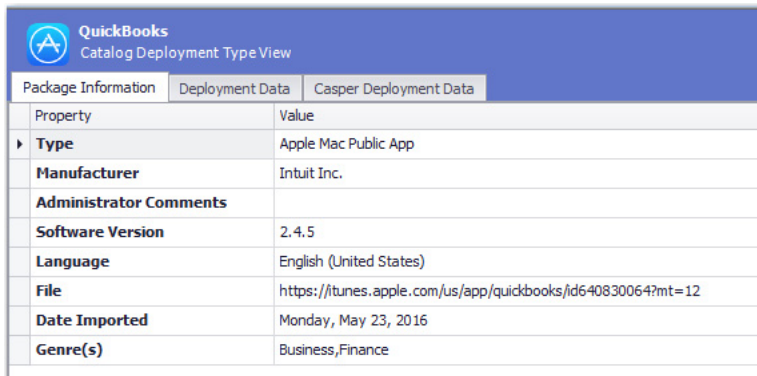
**Figure 8:** Apple Mac App Store Option on Public Store Selection Panel

After you have imported a Mac OS X desktop application into the Application Catalog, you can test it and distribute it to a Casper server. For more information, see:

- [Test Mac OS X Desktop Applications](#)
- [Publish Mac OS X Desktop Applications to Casper With Integration to App Portal](#)

## New Field That Identifies Genre of Mac Public Store Apps (Both iOS and OS X)

For Apple public store apps imported into the Application Catalog (both iOS and OS X apps), a new **Genre(s)** field is listed on the **Package Information** tab of the **Catalog Deployment Type View**, which lists the category that the application belongs to in the public store.

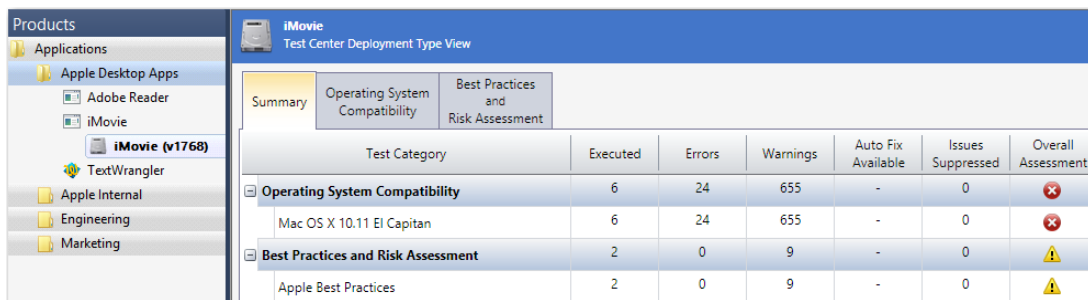


Property	Value
Type	Apple Mac Public App
Manufacturer	Intuit Inc.
Administrator Comments	
Software Version	2.4.5
Language	English (United States)
File	https://itunes.apple.com/us/app/quickbooks/id640830064?mt=12
Date Imported	Monday, May 23, 2016
Genre(s)	Business, Finance

**Figure 9:** Genre(s) Field on Package Information Tab

## Test Mac OS X Desktop Applications

You can use Test Center to test all three types of supported Mac OS X desktop applications: DMG files, PKG files, and Mac App Store apps. Tests are available in the **Operating System Compatibility** and **Best Practices and Risk Assessment** test categories.



Test Category	Executed	Errors	Warnings	Auto Fix Available	Issues Suppressed	Overall Assessment
<b>Operating System Compatibility</b>	6	24	655	-	0	✖
Mac OS X 10.11 El Capitan	6	24	655	-	0	✖
<b>Best Practices and Risk Assessment</b>	2	0	9	-	0	⚠
Apple Best Practices	2	0	9	-	0	⚠

**Figure 10:** Test Results for Mac OS X Desktop App

In AdminStudio 2016, the following new tests for Mac OS X desktop applications have been added:

Category	Test Name	Description	Supported Package Types
<b>Operating System Compatibility</b>	MAC001	<b>Deprecated Property List Keys</b>	DMG, PKG
	MAC002	<b>Deprecated Frameworks</b>	DMG, PKG
	MAC003	<b>Application Requires Specific Minimum OS Version</b>	DMG, PKG, Mac App Store
	MAC004	<b>Deprecated APIs</b>	DMG, PKG
	MAC005	<b>Application Requires 64-bit Processor</b>	Mac App Store
	MAC006	<b>Removed Frameworks</b>	DMG, PKG
	MAC007	<b>Removed APIs</b>	DMG, PKG
<b>Apple Best Practices</b>	MAC701	<b>Recommended Property List Keys</b>	DMG, PKG
	MAC702	<b>Code Signature</b>	DMG, PKG
	MAC703	<b>Volume Purchase Program</b>	Mac App Store
	MAC704	<b>Allows In-App Purchases</b>	Mac App Store

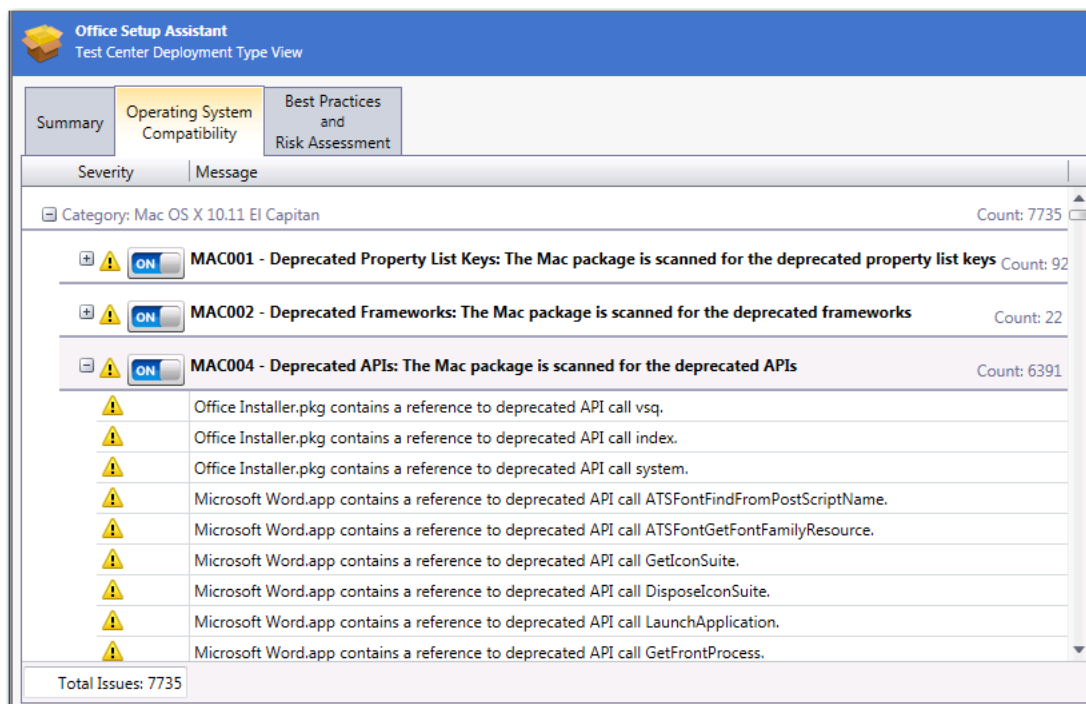
## Combined Testing of Child Applications of DMG and PKG Files

If an Apple disk image package (**.dmg**) or Apple installer package (**.pkg**) contains child packages bundled within it, those child packages are also tested when the parent package is tested. Test results of the parent package and all of its child packages are combined and are displayed in Test Center.

Office Setup Assistant Test Center Deployment Type View							
Summary		Operating System Compatibility		Best Practices and Risk Assessment			
Test Category		Executed	Errors	Warnings	Auto Fix Available	Issues Suppressed	Overall Assessment
[-] Operating System Compatibility		6	1230	6505	-	0	✖
Mac OS X 10.11 El Capitan		6	1230	6505	-	0	✖
[-] Best Practices and Risk Assessment		2	0	143	-	0	⚠
Apple Best Practices		2	0	143	-	0	⚠

**Figure 11:** Consolidated Test Results for Apple Installer Package (.pkg)

When you view detailed test results, the name of the child **.dmg**, **.pkg**, or **.app** file that generated the error or warning is listed.



**Figure 12:** Detailed Consolidated Test Results for Apple Installer Package (.pkg)

## Publish Mac OS X Desktop Applications to Casper With Integration to App Portal

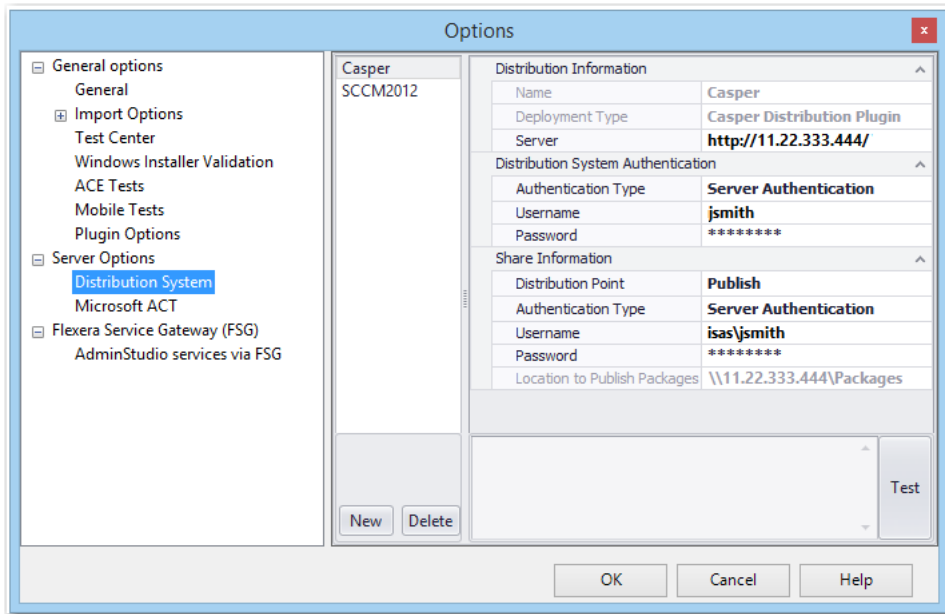
In AdminStudio 2016, you can publish Mac OS X desktop applications (DMG, PKG, and Mac App Store apps) to a JAMF Casper Suite server.

Because AdminStudio is also integrated with App Portal (which also supports Casper), you can choose to automatically create App Portal catalog items for DMG and PKG applications in your Application Catalog when you publish them to a Casper server.

- [Setting Up a Connection to a Casper Server](#)
- [Automatically Creating App Portal Catalog Items for DMG and PKG Applications](#)
- [Viewing Casper Deployment Data for an Application](#)

## Setting Up a Connection to a Casper Server

On the **Server Options > Distribution Options** tab of the Application Manager **Options** dialog box, you can now create a named connection to a Casper server.



**Figure 13:** Named Connection to a Casper Server

After you select **Casper Distribution Plugin** from the **Deployment Type** field, the settings required for connecting to a Casper server are listed.

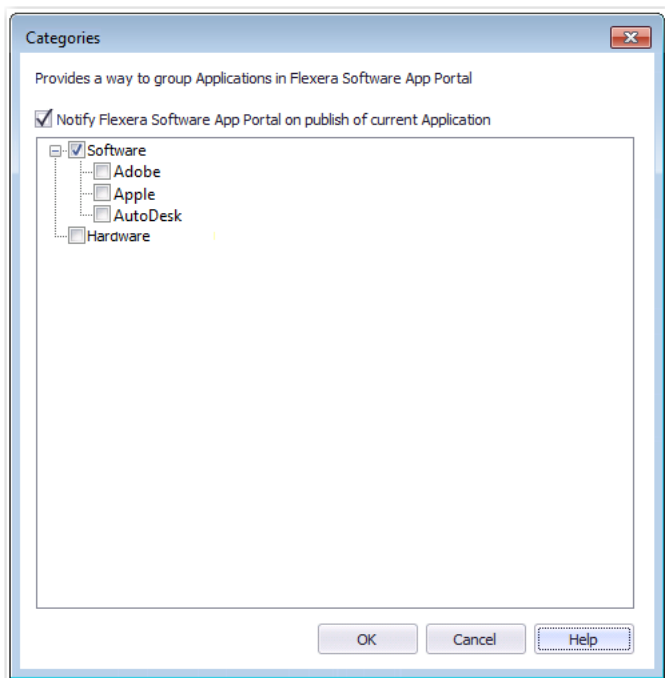


**Note** • Casper supports multiple server infrastructures, but AdminStudio only supports the **File Share Distribution Points** infrastructure, and copies packages to a UNC File Share Distribution Point in Casper. AdminStudio currently does not support copying packages to JDS Instances, Cloud Distribution Points, Software Update Servers, or NetBoot Servers.

## Automatically Creating App Portal Catalog Items for DMG and PKG Applications

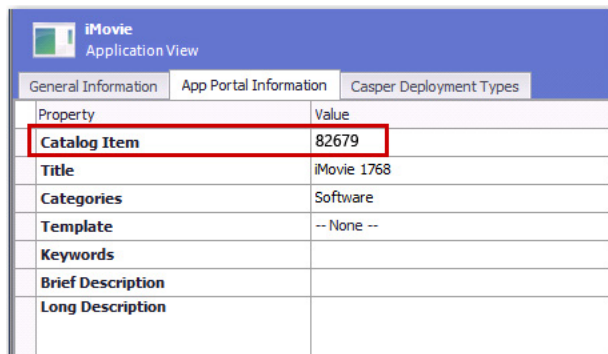
When you distribute DMG and PKG applications to Casper Suite Server, you can instruct AdminStudio to automatically create App Portal catalog items for each of those applications.

To do this, first set up a named connection to a Casper server and connect to the Flexera Service Gateway. Then, open the **App Portal Information** tab of the DMG or PKG application's **Application View**, and click on the **Categories** field to open the **Categories** dialog box. On the **Categories** dialog box, select the **Notify Flexera Software App Portal on publish of current application** option and select one or more App Portal categories where the catalog item will be available.



**Figure 14:** Selecting App Portal Options on Categories Dialog Box

When this application is published to Casper, a catalog item in the selected category will automatically be created, and the **Catalog Item** field on the **App Portal Information** view will display the App Portal Catalog ID for that catalog item.



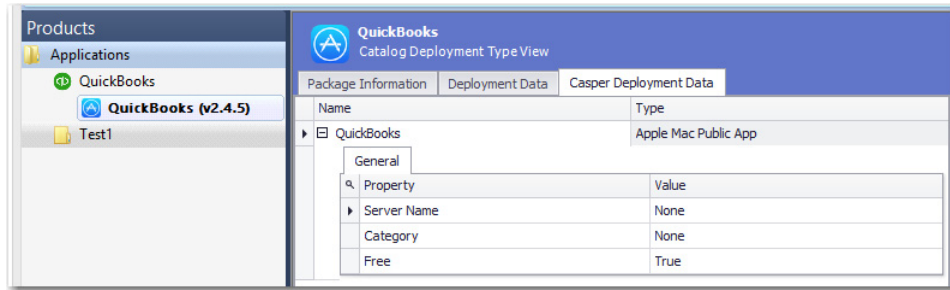
**Figure 15:** Catalog Item Field on App Portal Information Tab



**Note** • If an App Portal catalog item has not been created for an application, the **Catalog Item** field will display *Not Published to App Portal*.

## Viewing Casper Deployment Data for an Application

In AdminStudio 2016, you can view and modify Casper deployment settings for Mac OS X desktop applications on the new **Casper Deployment Data** tab of the **Catalog Deployment Type View**.






**Figure 16:** Casper Deployment Data Tab of Catalog Deployment Type View




The **Casper Deployment Data** tab can include up to three subtabs that display Casper deployment data: **General**, **Options**, and **Limitations**.



**Note** • The **Options** and **Limitations** subtabs are not displayed for Mac App Store apps.

The **Casper Deployment Data** tab displays the following properties:

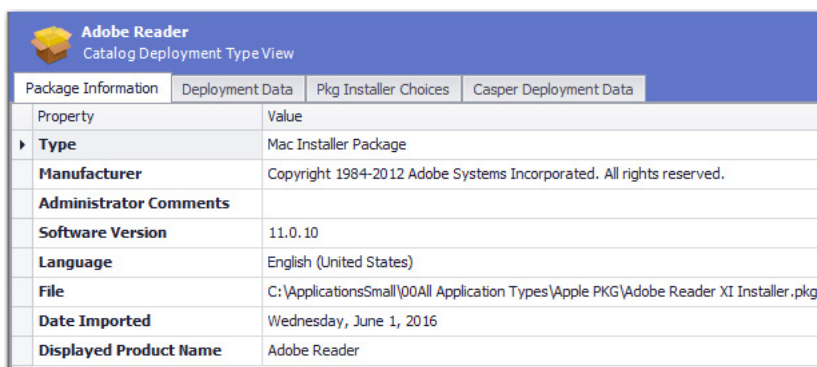
Subtab	Property	Description
General	Server Name	Name of the Casper server.
	Category	Category in Casper that the package will be added to.  <b>Note</b> • Casper lets you create custom categories. If AdminStudio has matched this application to an entry in the Application Recognition Library (ARL), AdminStudio will use the ARL category when publishing to Casper, creating it if necessary.
	Info	Information to display to the administrator when the package is deployed or uninstalled
	Notes	Notes to display about the package (such as the name of the person who built it and when it was built).  <b>Note</b> • Not displayed for Mac App Store apps.
	Free	Indicates whether or not the Mac App Store app is available for free ( <b>True</b> ) or whether it requires payment ( <b>False</b> ).  <b>Note</b> • Only displayed for Mac App Store apps.

Subtab	Property	Description
Options	<b>Priority</b>	<p>Priority to use for deploying or uninstalling the package. For example, a package with a priority of <b>1</b> is deployed or uninstalled before other packages.</p> <p>When several applications are deployed together, the one with the highest priority is installed first. Therefore, if one application requires that another application be installed first before it can be successfully installed, you should assign the required application a higher priority (lower number) than the dependent application.</p>
	<b>Fill user templates (FUT)</b>	<p>Set this property to <b>True</b> to fill new home directories with the contents of the home directory in the package's <b>Users</b> folder.</p> <p>This setting can be changed when deploying or uninstalling the package using a policy.</p>  <p><b>Note</b> • Only applicable to DMG packages.</p>
	<b>Fill existing user home directories (FEU)</b>	<p>Set this property to <b>True</b> to fill existing home directories with the contents of the home directory in the package's <b>Users</b> folder.</p> <p>This setting can be changed when deploying or uninstalling the package using a policy.</p>  <p><b>Note</b> • Only applicable to DMG packages.</p>
	<b>Requires restart</b>	<p>Set this property to <b>True</b> to require that computers must be restarted after installing the package.</p>
	<b>Install on boot drive after imaging</b>	<p>Set this property to <b>True</b> to ensure that the package is installed on the boot drive after imaging.</p>  <p><b>Note</b> • This setting is only used when deploying a package with an OS image, like with an OSD. It does not affect day-to-day package delivery.</p>

Subtab	Property	Description
Limitations	<b>Operating System Requirement</b>	Enter operating system version numbers, separated by commas, to specify that the package only be permitted to be deployed to computers with these operating system versions. To restrict installation to OS X 10.6.8, 10.7.x, or 10.8, you would enter the following:  10.6.8, 10.7.x, 10.8
	<b>Install Only if Available in Software Update</b>	Set to <b>True</b> to require that this package only be installed if it is available in a software update.
	<b>Limit Architecture Type</b>	Set to <b>True</b> to require that this package only be installed on machines matching the selected <b>Architecture Type Requirement</b> .
	<b>Architecture Type Requirement</b>	If <b>Limit Architecture Type</b> is set to <b>True</b> , select the one of the following to specify the architecture type required to deploy the package: <ul style="list-style-type: none"> <li>PowerPC</li> <li>Intel/X86</li> </ul>
	<b>Substitute Package</b>	If you want to specify a different package to deploy to computers that do not meet the architecture type requirement, click the Browse button in this field to open the <b>Select Substitute Package</b> dialog box, and select a substitute package from either Casper or the Application Catalog.

## Product Name Displayed in Casper Listed on the Catalog Deployment Type View

For DMG and PKG packages imported into the Application Catalog, a **Displayed Product Name** field is listed on the **Package Information** tab of the **Catalog Deployment Type** View, listing the property that is mapped to the **File Name** property in Casper.



**Figure 17:** Displayed Product Name Field on Package Information Tab

# Ability to Inspect and Test Complex Installer Executables

In previous releases, you could import complex installer executable files (.exe) that contain bundled Windows Installer packages into the Application Catalog, but you could not view the names of those bundled packages and you could not test those packages. You were limited to just viewing general package information and deployment data.

In AdminStudio 2016, you can now view the names of bundled Windows Installer packages and perform operating system compatibility, application virtualization compatibility, and best practices testing on those bundled packages.

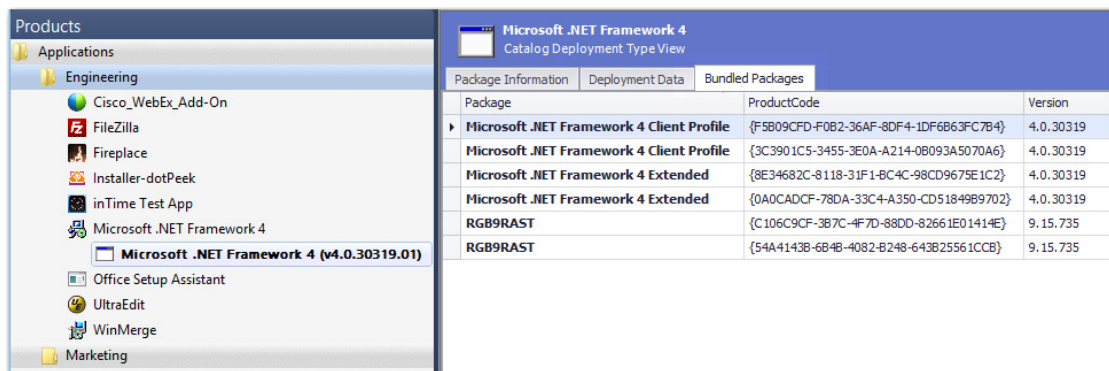
- [Bundled Windows Installer Packages Now Listed on New Bundled Packages Tab](#)
- [Can Perform Testing of Child Windows Installer Packages of Complex Installer Executables](#)

## Bundled Windows Installer Packages Now Listed on New Bundled Packages Tab

There are multiple installation executable types that can contain embedded Windows Installer packages, including the following:

- InstallShield InstallScript .exe files
- InstallShield Basic MSI installers that are compressed into a **setup.exe** file
- InstallShield Suite Installer .exe files
- Wise Package Studio .exe files
- Other executable file types that can be uncompressed by 7-ZIP

In AdminStudio 2016, Application Manager can inspect the child .msi packages in these complex installer .exe files, and display a list of those child packages on the new **Bundled Packages** tab of the **Catalog Deployment Type View**.



**Figure 18:** Bundled Packages Tab of Catalog Deployment Type View / Microsoft .NET Framework 4 Suite

When inspecting these child .msi packages, Application Manager extracts the information about each package, such as product name and version number. This makes it much more likely that Application Manager will be able to assign a Flexera Identifier to these applications.



**Note** • AdminStudio will only inspect complex installer .exe files one level deep. If a complex installer .exe file contains another complex installer .exe file bundled within it, that child .exe file will not be inspected.

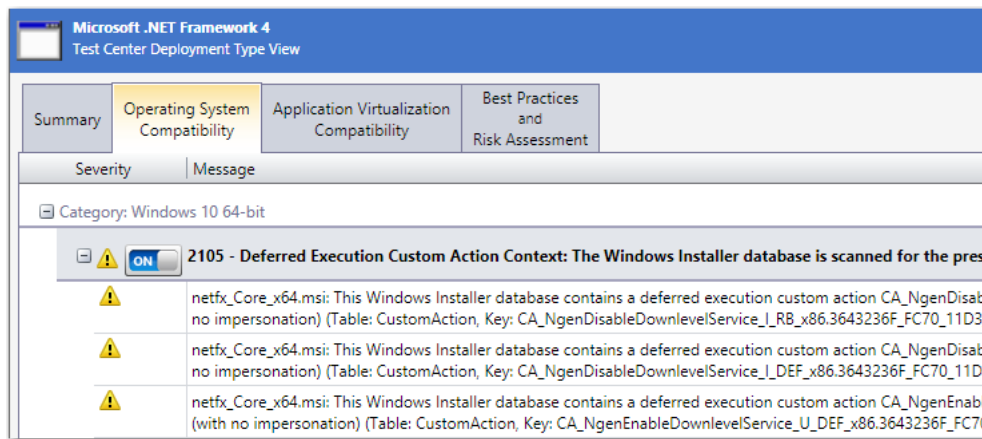
## Can Perform Testing of Child Windows Installer Packages of Complex Installer Executables

When a complex installer .exe file is tested, its child Windows Installer packages are also tested and the test results are combined and displayed in Test Center.

Microsoft .NET Framework 4 Test Center Deployment Type View							
Summary	Operating System Compatibility	Application Virtualization Compatibility	Best Practices and Risk Assessment				
Test Category	Executed	Errors	Warnings	Auto Fix Available	Issues Suppressed	Overall Assessment	
<b>Operating System Compatibility</b>	12	0	198	-	0		⚠
Windows 10 32-bit	0	0	0	-	0		⚪
Windows 8 32-bit	0	0	0	-	0		⚪
Windows 7 32-bit	0	0	0	-	0		⚪
Windows 10 64-bit	12	0	198	-	0		⚠
Windows 8 64-bit	0	0	0	-	0		⚪
Windows 7 64-bit	0	0	0	-	0		⚪
Windows Server 2012	0	0	0	-	0		⚪
Windows Server 2008 R2	0	0	0	-	0		⚪
<b>Application Virtualization Compatibility</b>	131	107	36	-	-		✖
Microsoft App-V 4.x	27	17	12	-	-		✖
Microsoft App-V 5.x	23	17	6	-	-		✖
VMware ThinApp 4.x	23	25	6	-	-		✖
VMware ThinApp 5.x	22	23	6	-	-		✖
Citrix XenApp Profile	28	25	6	-	-		✖
Symantec Workspace Virtualization	8	0	0	-	-		✓
<b>Best Practices and Risk Assessment</b>	102	847	5750	0	0		✖
Windows Installer Internal Consistency Evaluators	102	847	5750	0	0		✖

**Figure 19:** Consolidated Test Results for Windows Installer Suite Package

When you view detailed test results, the name of the child Windows Installer package that generated the error or warning is listed.



**Figure 20:** Combined Suite Installer Test Results

## Improved FlexNet Manager Suite Integration

In AdminStudio 2016, several new features have been added to improve integration with FlexNet Manager Suite. You can now generate a list of all applications in the Application Catalog that do not have an associated Flexera Identifier, and can create local Application Recognition Library entries for internally developed, repackaged, or unrecognized applications.

- [Ability to Search Application Catalog for Unrecognized Applications](#)
- [Ability to Create Local Flexera Identifier Entries for Internal or Repackaged Applications](#)
- [Ability to Enter FlexNet Manager Suite URL](#)

### Ability to Search Application Catalog for Unrecognized Applications

A Flexera Identifier is a unique code, stored in the Application Recognition Library, that is assigned to applications by FlexNet Manager Suite. It is used to link application information from Application Manager with application information in AdminStudio Inventory and Rationalization, FlexNet Manager Suite, and App Portal.

If both Application Manager and FlexNet Manager Suite are connected to the same Flexera Service Gateway, each time you import an application into the Application Catalog, a search for the application's Flexera Identifier is performed, and if it is found, it is listed on the **General Information** tab of the **Application View**.

However, sometimes an application's Flexera Identifier is not found, such as when:

- **Incorrect information**—The value of the information in the application's Product Name, Version, Edition, or Publisher fields is either incorrect or too specific.
- **Internally developed applications**—The application has been developed internally.
- **Repackaged applications**—The application has been repackaged.

In previous releases, there was no way to quickly identify all of the applications in your Application Catalog that did not have an assigned Flexera Identifier. You were required to review each application one by one.

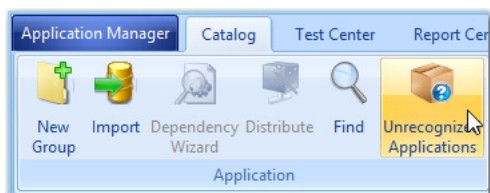
In AdminStudio 2016, you can now generate a list of all applications in the Application Catalog that do not have an associated Flexera Identifier, so that you can search for and assign an existing Flexera Identifier to the application or create a new local Flexera Identifier.



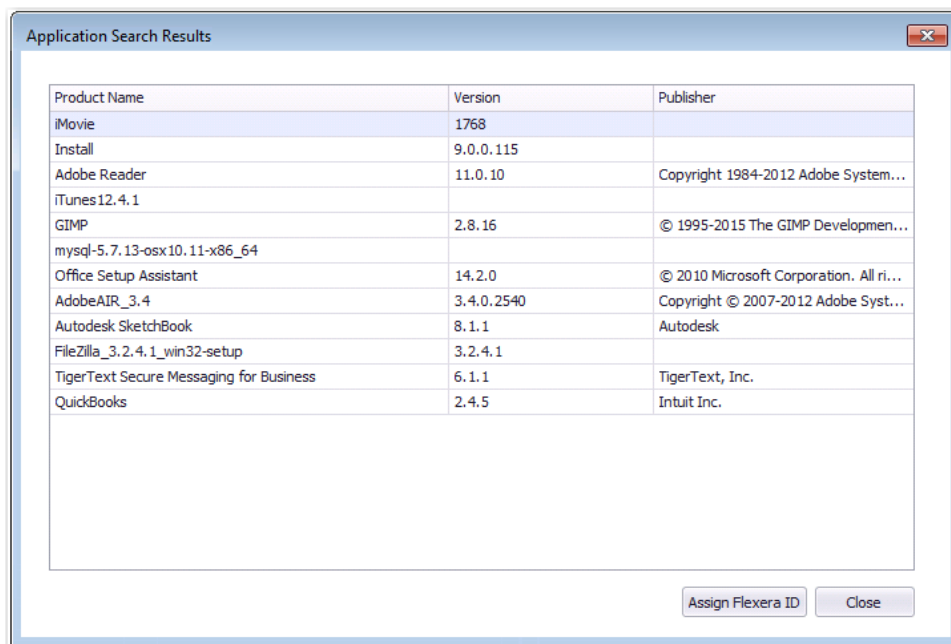
### Task

#### To search Application Catalog for unrecognized applications:

1. Click **Unrecognized Applications** in the toolbar of the Application Manager **Catalog** tab.



The **Application Search Results** dialog box opens, listing all applications in the Application Catalog that do not have an associated Flexera Identifier.



2. Select an application in the list and click **Assign Flexera ID**. The **Flexera Identifier** dialog box opens.

Flexera Identifier

Current Flexera Identifier:   

Search Criteria

Use the following search fields to locate and select a Flexera Identifier

Product Name:

Version:

Edition:

Publisher:

Matching Application(s):

#	Flexera Identifier	Product Name	Version	Edition	Publisher
---	--------------------	--------------	---------	---------	-----------

3. Edit the text in the **Search Criteria** fields to either correct the information or make it less specific, and then click **Search**. A list of possible matching applications will be generated and will be listed in the **Matching Application(s)** list.
4. Do one of the following:
  - **Matching application found**—If the correct matching application is listed, select it from the list and click **OK**. The selected Flexera Identifier will be saved in the Application Catalog and will be listed on the **General Information** tab of the **Application View** for that application.
  - **Matching application not found**—If a matching application is not listed, continue with the steps in [Ability to Create Local Flexera Identifier Entries for Internal or Repackaged Applications](#) to create a new local Flexera Identifier.

## Ability to Create Local Flexera Identifier Entries for Internal or Repackaged Applications

In AdminStudio 2016, you can create new local Flexera Identifier entries for the FlexNet Manager Suite Application Recognition Library. These may be required for internally developed applications, repackaged applications, and other applications that are not recognized by FlexNet Manager Suite.



### **Task**      **To create a local Flexera Identifier for an application:**

1. Open the **Application View** of the unrecognized application and click the browse button in the empty **Flexera Identifier** field. The **Flexera Identifier** dialog box opens.

Flexera Identifier

Current Flexera Identifier:  × Create New...

Search Criteria

Use the following search fields to locate and select a Flexera Identifier

Product Name:  ×

Version:  ×

Edition:  ×

Publisher:  ×

Search

Matching Application(s):

#	Flexera Identifier	Product Name	Version	Edition	Publisher
---	--------------------	--------------	---------	---------	-----------

OK Cancel Help

2. Use the search fields to locate and select a Flexera Identifier.

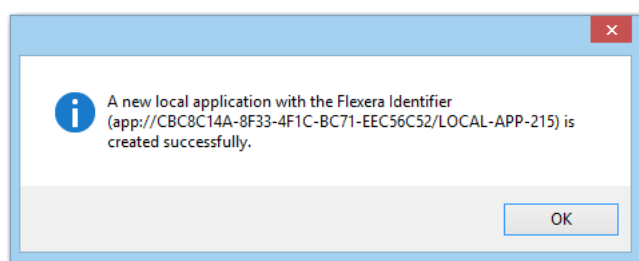
3. If no Flexera Identifier is found, click **Create New**. The **Flexera Local Identifier** dialog box opens.

4. Enter the following information:

Property	Description
<b>Product Name</b>	The basic name of the application, excluding references to versions or editions, and without mentioning the publisher.
<b>Version</b>	The release number (or release identifier) of an application.
<b>Edition</b>	Enter the edition of this application.
<b>Publisher</b>	The name of the publisher of this software, responsible for its development and distribution.

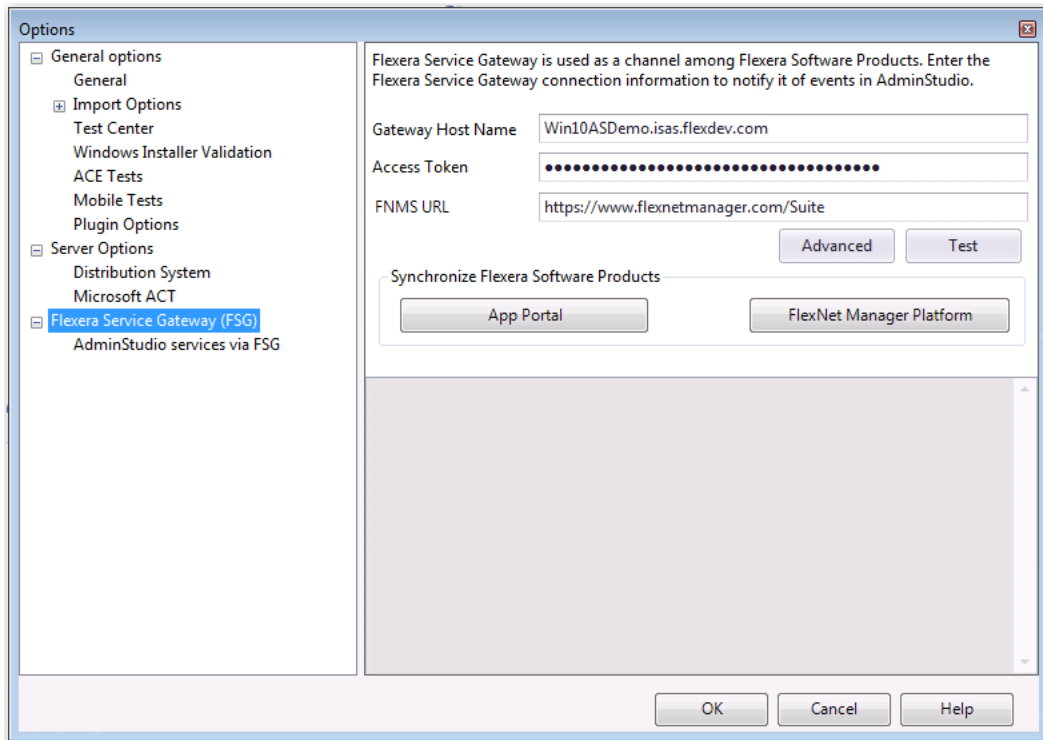
Property	Description
<b>Classification</b>	<p>To indicate how this application is classified, select one of the following options:</p> <ul style="list-style-type: none"> <li>• <b>Beta</b>—A pre-release application (covers such items as beta releases, alpha releases, or release candidates) that you have under some special arrangement.</li> <li>• <b>Commercial</b>—The application requires a license to be purchased for use in a commercial setting.</li> <li>• <b>Freeware</b>—Licensed for use in a commercial environment free-of-charge.</li> <li>• <b>Malware</b>—A potentially harmful application (a virus, Trojan, and the like), and should be treated as malware. If installations of this application are identified, you need to address the corresponding incidents or security issues.</li> <li>• <b>Shareware</b>—The application is available for downloading from web sites, and typically uses a “try-before-you-buy” licensing model that might include reminder messages, functional limitations, or other restrictions until a full license is purchased.</li> <li>• <b>X Rated</b>—The application contains potentially objectionable or sexually explicit material. You might want to consider whether corporate policies require any action.</li> <li>• <b>Update</b>—The application represents an update, for example, a service pack, to another application, and is issued for free to all customers regardless of purchasing agreements or support contracts (a “minor” update).</li> </ul>

5. Click **Create**. A confirmation message appears stating that a new local Flexera Identifier has been created.



## Ability to Enter FlexNet Manager Suite URL

In AdminStudio 2016, you can now more easily configure your connection to FlexNet Manager Suite by entering the FlexNet Manager Suite URL in the **FNMS URL** field on the **Flexera Service Gateway (FSG)** tab of the Application Manager **Options** dialog box.



**Figure 21:** FNMS URL Field on Flexera Service Gateway (FSG) Tab of Options Dialog Box

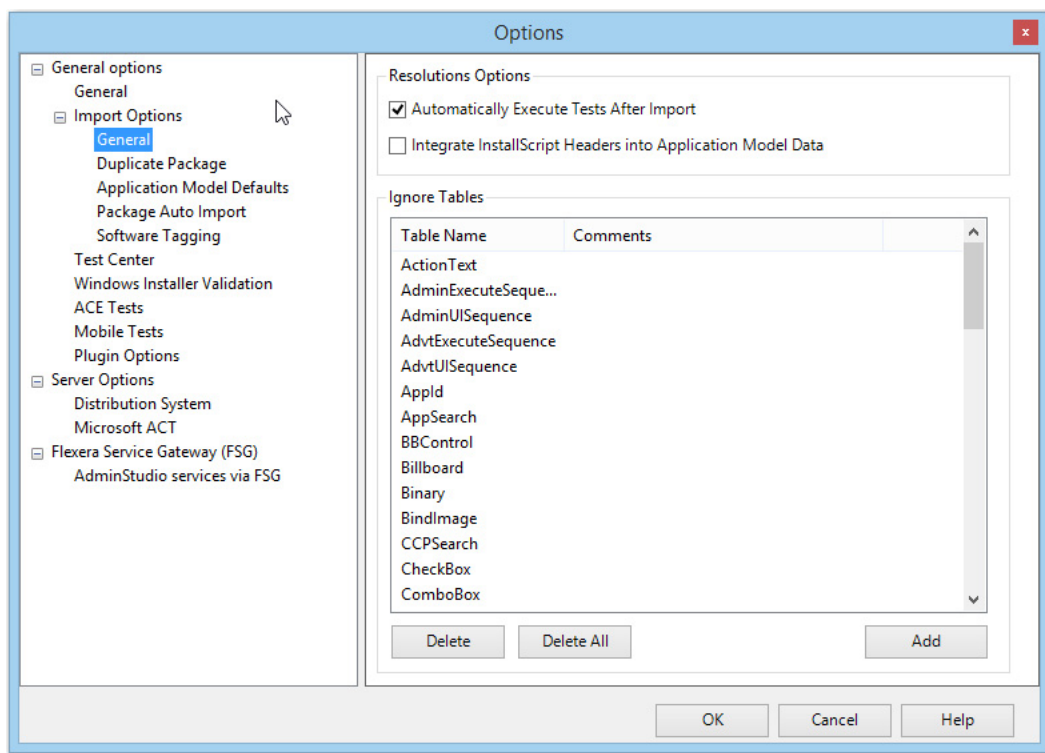
## Enhanced Automation Capabilities to Streamline Application Import and Testing

AdminStudio 2016 offers several new automation features that help you to streamline the application import and testing process.

- [Applications Are Automatically Tested Upon Import](#)
- [Enhancements to Package Auto Import Feature](#)
- [Enhanced Control When Using Import Wizard to Perform Batch Import from a Directory](#)

## Applications Are Automatically Tested Upon Import

In AdminStudio 2016, Application Manager is now configured to automatically test packages against all selected compatibility, best practices, and risk assessment tests as part of the import process. By default, the **Automatically Execute Tests After Import** option on the **Import Options** tab of the Application Manager **Options** dialog box is selected. In previous releases, this option was not selected by default.



**Figure 22:** Automatically Execute Tests After Import Option

While having this option selected will mean longer import times for each application, packages will have all testing details populated immediately after import. However, if you are concerned with the length of import time, you may want to clear the selection of this option.



**Note** • In previous releases of AdminStudio, the **Automatically Execute Tests After Import** option was not selected by default; in AdminStudio 2016, this option is selected by default. Therefore, for users upgrading from previous releases of AdminStudio, they will inherit the new default selection, which means that, by default, this option will be selected and tests will be run immediately after import. To have the same user experience as you did in previous versions, you need to clear the selection of this option.

## Enhancements to Package Auto Import Feature

The Application Manager **Package Auto Import** feature enables you to automatically import or re-import packages in shared network directories into your Application Catalog. Application Manager periodically checks these directories and imports all new packages it finds, and reimports all updated packages.

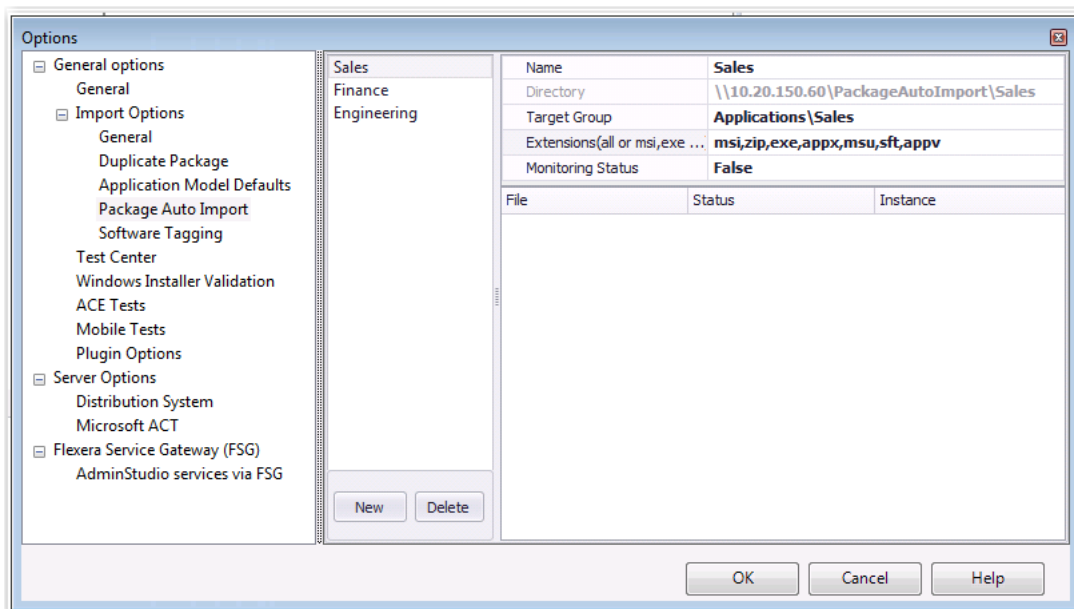
In AdminStudio 2016, the following enhancements have been added to this feature to make it even more powerful and useful:

- [Can Monitor Multiple Directories Simultaneously](#)
- [Can Select File Types to Monitor](#)
- [Can Perform Batch Auto Import of Microsoft Security Patch Files and iOS Enterprise Policy Files](#)

### Can Monitor Multiple Directories Simultaneously

In previous releases, when setting up the Package Auto Import feature, you could only specify a single directory to scan for new or updated packages to import.

In AdminStudio 2016, you can specify multiple directories to monitor. On the **General Options > Import Options > Package Auto Import** tab of the **Options** dialog box, you can add a directory to monitor by clicking the **New** button. There is no limit to the number of directories you can monitor.




**Figure 23:** Import Options > Package Auto Import Tab of Options Dialog Box

After the initial auto-import operation, packages will be imported or reimported into the Application Catalog whenever:

- A new package is added to one of the monitored directories.
- An existing package in one of the monitored directories is updated.

Each time you specify a directory to monitor, you need to provide the following information.

Property	Description
<b>Directory</b>	<p>Enter the directory to monitor. You can either enter a directory path or click the browse button and select a directory.</p>  <hr/> <p><b>Important</b> • The directory must be in UNC format and it must be a shared directory.</p>
<b>Target Group</b>	<p>Specify the group in the Application Manager tree into which the packages will be imported.</p>
<b>Monitoring Status</b>	<p>Set this option to <b>True</b> to begin monitoring this directory for new and updated packages. Set it to <b>False</b> to stop monitoring the directory.</p>
<b>Extensions</b>	<p>Click the browse button to open the <b>Select Watcher Extensions</b> dialog box, where you will specify the package types to import, as described in <a href="#">Can Select File Types to Monitor</a>.</p>

The monitoring of the specified Package Auto Import directories is a task that can be distributed among the AdminStudio Host processes of all of the installations of AdminStudio in your network that have access to the specified shared directory.

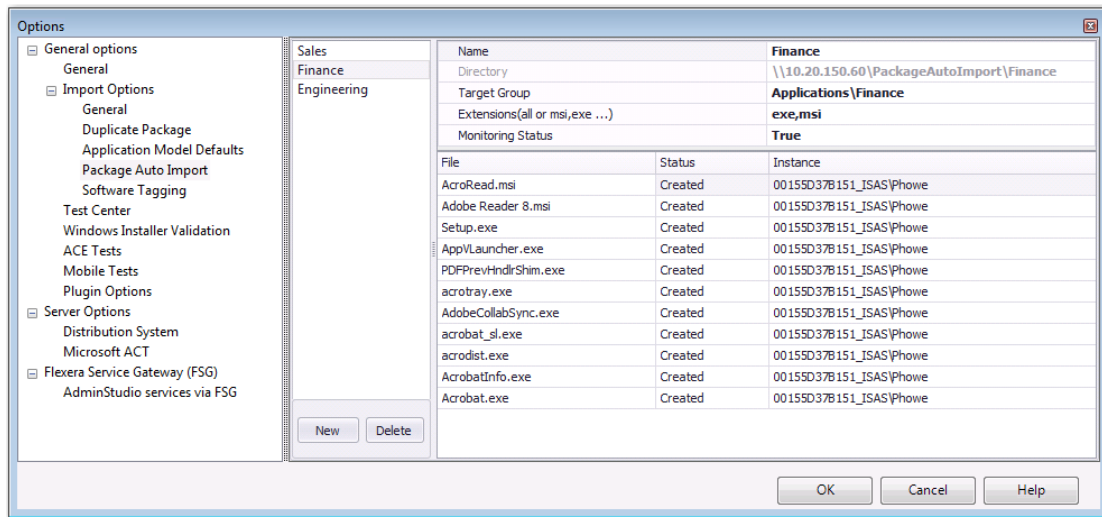
After you have specified a directory on the **Package Auto Import** tab and have set the **Monitoring Status** field to **True**, the AdminStudio Host processes that are connected to the same Application Catalog will begin to monitor these directories.

Packages in the monitored directories will be imported as soon as one of the AdminStudio Host processes connected to the same Application Catalog is running but is not currently being used. This ensures that if someone is actively using one of AdminStudio's tools, the import (and subsequent testing) of packages by the Package Auto Import process will not slow down the performance of AdminStudio.



**Tip** • To make sure that the batch import activities of the Package Auto Import process take place when AdminStudio tools are not in use, you could launch AdminStudioHost.exe as a scheduled task during off peak hours and it will perform the import of packages from the monitored directories at that time.

After a directory's **Monitoring Status** has been set to **True**, the packages (of the selected package type) in that directory are listed on the **Package Auto Import** tab.



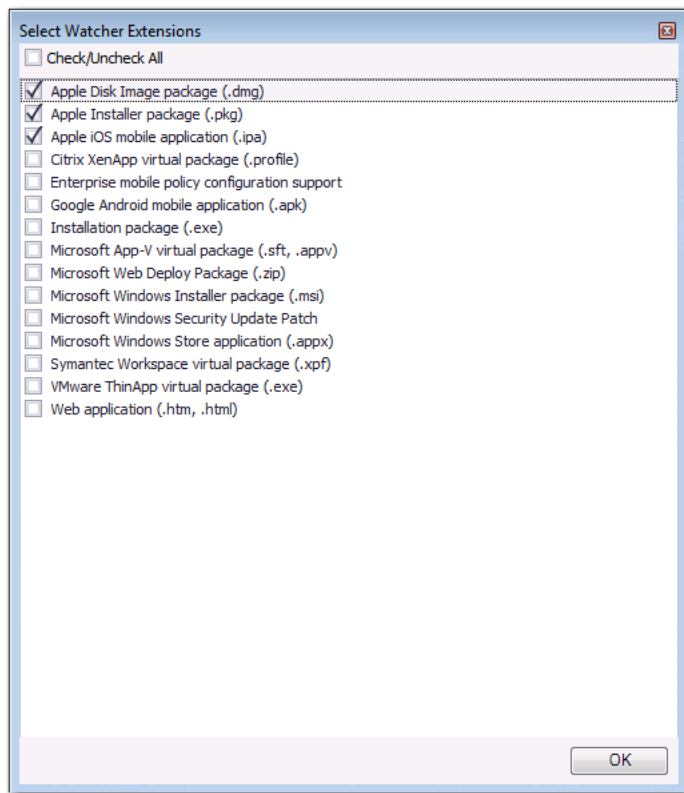
**Figure 24:** Monitoring the Import of Packages in a Directory on the Package Auto Import Tab

In the **Status** column, packages will have one of the following statuses:

- **Created**—Package will be imported as soon as one of the AdminStudio Host processes connected to this Application Catalog is running but is not currently being used.
- **Imported**—Package has been imported into the Application Catalog.
- **Canceled**—User canceled the import of the package into the Application Catalog.
- **Error**—There was an error during import of the package into the Application Catalog.

## Can Select File Types to Monitor

When setting up a directory to monitor for a Package Auto Import process, you can now specify the specific package types in that directory to import. To do this, you click the browse button in the **Extensions** field of the **Package Auto Import** tab of the **Options** dialog box to open the **Select Watcher Extensions** dialog box.



**Figure 25:** Select Watcher Extensions Dialog Box

Only those packages of the package type you select on this dialog box will be imported from the monitored directory.

## Can Perform Batch Auto Import of Microsoft Security Patch Files and iOS Enterprise Policy Files

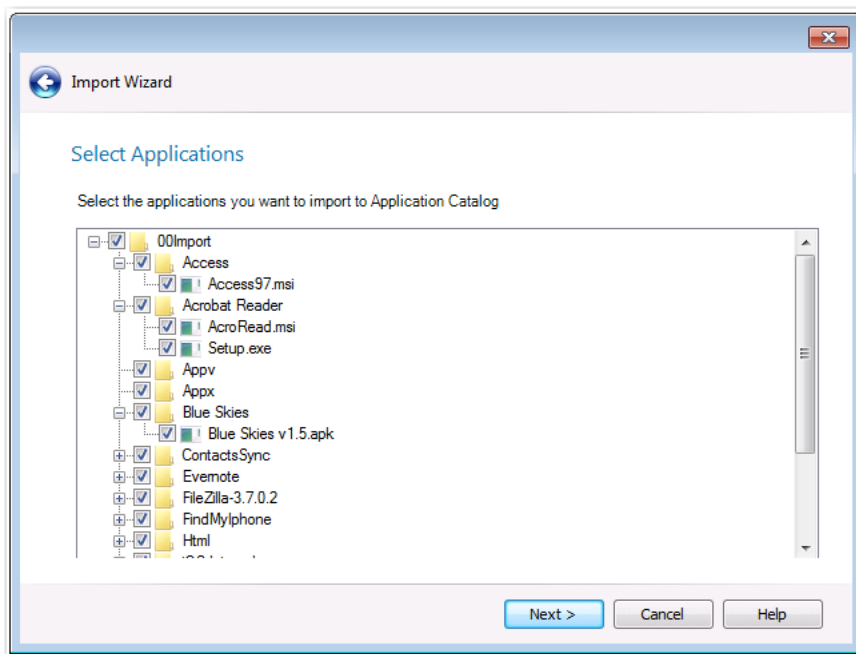
Previously, you could only import Microsoft Security Patch files (.msu) and iOS Enterprise Policy Configuration Files (.mobileconfig or .plist) one at a time using the Import Wizard.

In AdminStudio 2016, you can now perform a batch import of Microsoft Security Patch files and iOS Enterprise Policy Configuration files using the Package Auto Import feature. To do this, select the **Microsoft Windows Security Update Patch** and/or the **Enterprise mobile policy configuration support** options on the **Select Watcher Extensions** dialog box.

## Enhanced Control When Using Import Wizard to Perform Batch Import from a Directory

When using the Import Wizard to import a folder of applications, you can now choose to import only the packages that you select rather than all packages of the selected package type in the directory.

After you select the package types that you want to import from the selected directory on the **Package Type Selection** panel of the Import Wizard, a new panel named **Select Applications** opens, prompting you to select specific applications to import from the selected directory.



**Figure 26:** Select Applications Panel of Import Wizard

By default, all packages of the selected package type are selected. You can clear the selection of any packages you do not want to import.

# Automated Application Converter Enhancements

AdminStudio 2016 contains several enhancements to the Automated Application Converter tool to expand its functionality.

- [Automated Application Converter for Repackaging Now Included in Professional and Enterprise Editions](#)
- [Ability to Edit Default Automated Application Converter Settings From Application Manager](#)
- [Can Edit Conversion Settings From the Conversion Wizard on a Per-Run Basis](#)

## Automated Application Converter for Repackaging Now Included in Professional and Enterprise Editions

In AdminStudio 2016, the Professional and Enterprise editions now include Automated Application Converter—which you can use to perform automated repackaging on a virtual machine—without requiring you to purchase the Virtualization add-on pack.

- **Professional edition**—You can perform automated repackaging one package at a time.
- **Enterprise edition**—You can perform batch automated repackaging of a group of packages.



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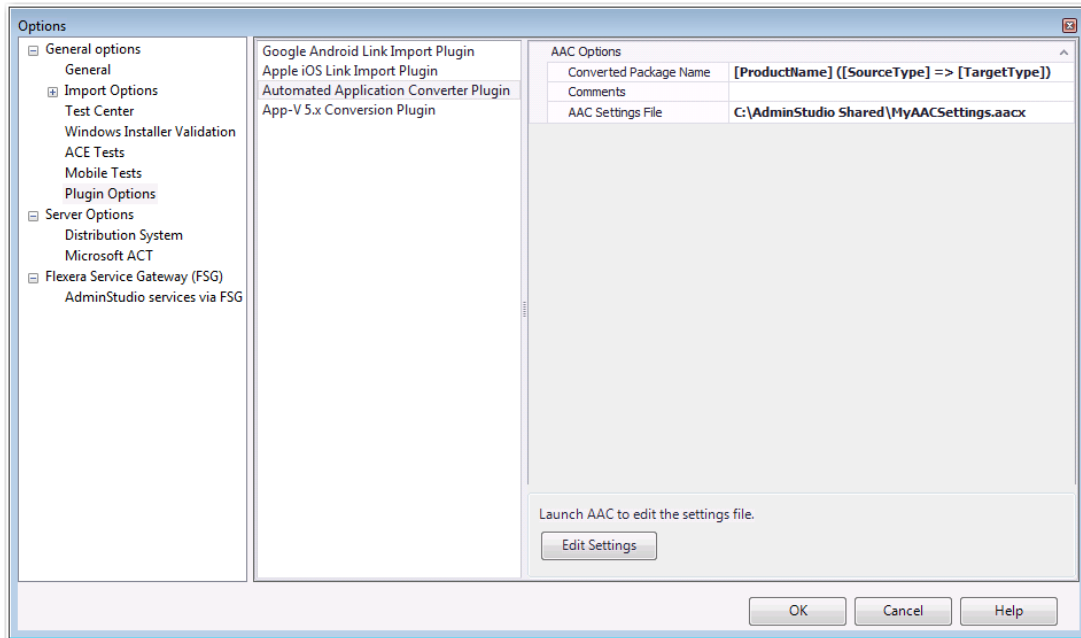
**Note** • *In order to use Automated Application Converter to convert packages to virtual formats, you will still be required to purchase the Virtualization add-on pack.*

You can choose to perform automated repackaging using either the Automated Application Converter interface or by using the Conversion Wizard, which is launched from Application Manager by right-clicking on a package or group of packages and then selecting **Launch Conversion Wizard** from the shortcut menu. Previously, the Conversion Wizard feature of Application Manager was only included with AdminStudio if you purchased the Virtualization add-on pack.

## Ability to Edit Default Automated Application Converter Settings From Application Manager

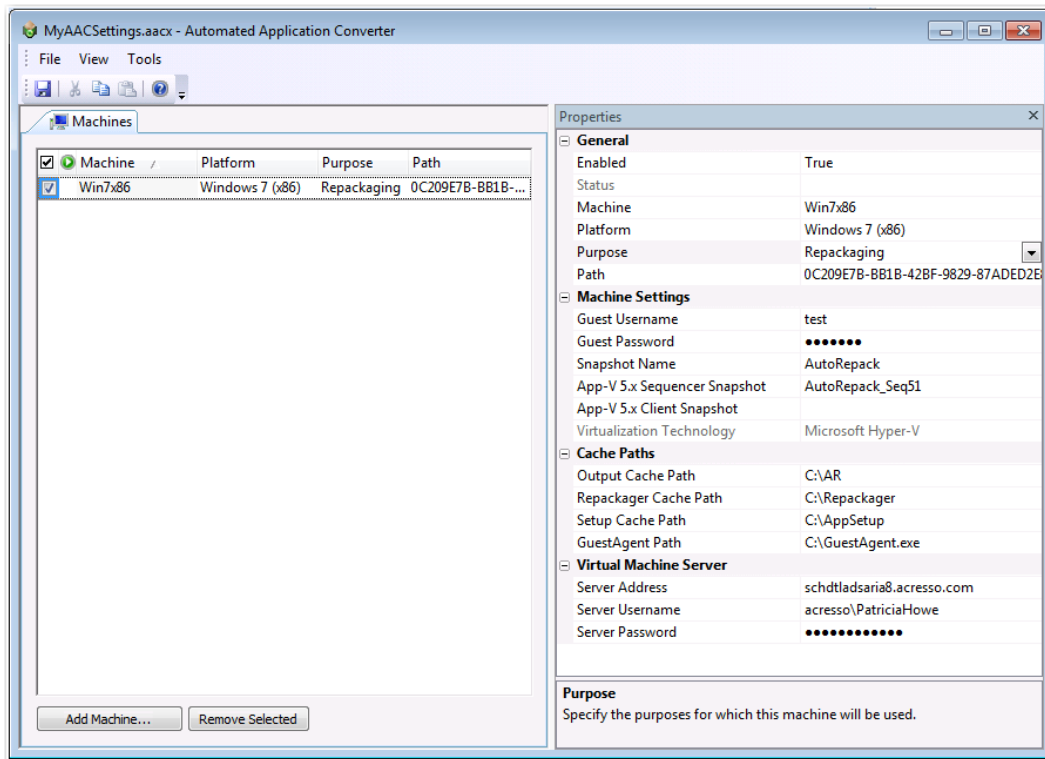
In previous releases, you were able to use the Application Manager Conversion Wizard to quickly convert one or multiple Windows Installer packages or legacy installers to virtual packages (of the specified type) using *default* Automated Application Converter settings. However, to edit those default settings, you were required to launch Automated Application Converter and open the default project file.

In AdminStudio 2016, you can now edit the default settings file by clicking the new **Edit Settings** button on the **Plugin Options > Automated Application Converter Plugin** tab of the **Options** dialog box:



**Figure 27:** Edit Settings Button on Plugin Options > Automated Application Converter Plugin Tab

When you click **Edit Settings**, a limited version of Automated Application Converter opens, displaying the **Machines** tab, where you can quickly edit any of these default conversion settings and save them into this default project file.

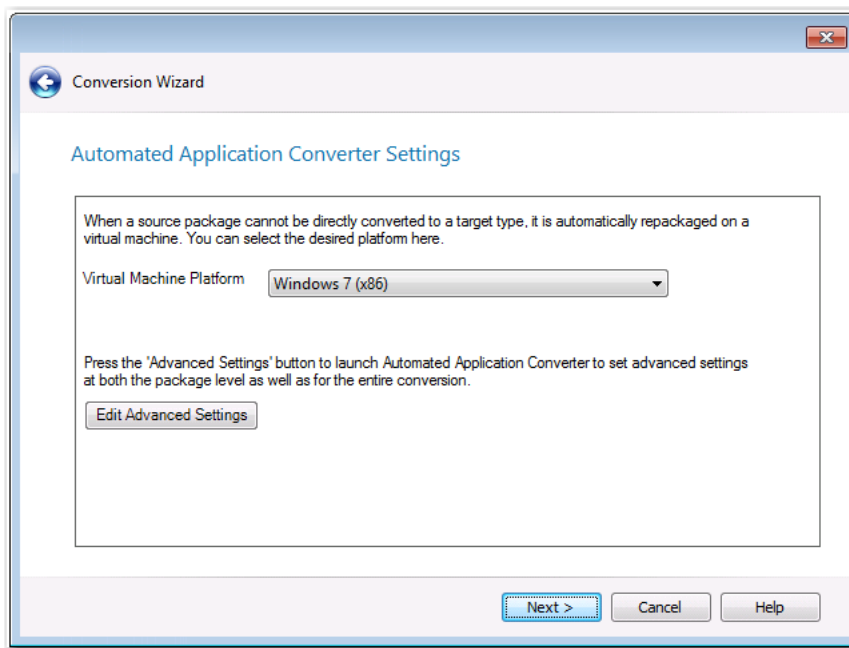


**Figure 28:** Editing the Default Automated Application Converter Settings File

## Can Edit Conversion Settings From the Conversion Wizard on a Per-Run Basis

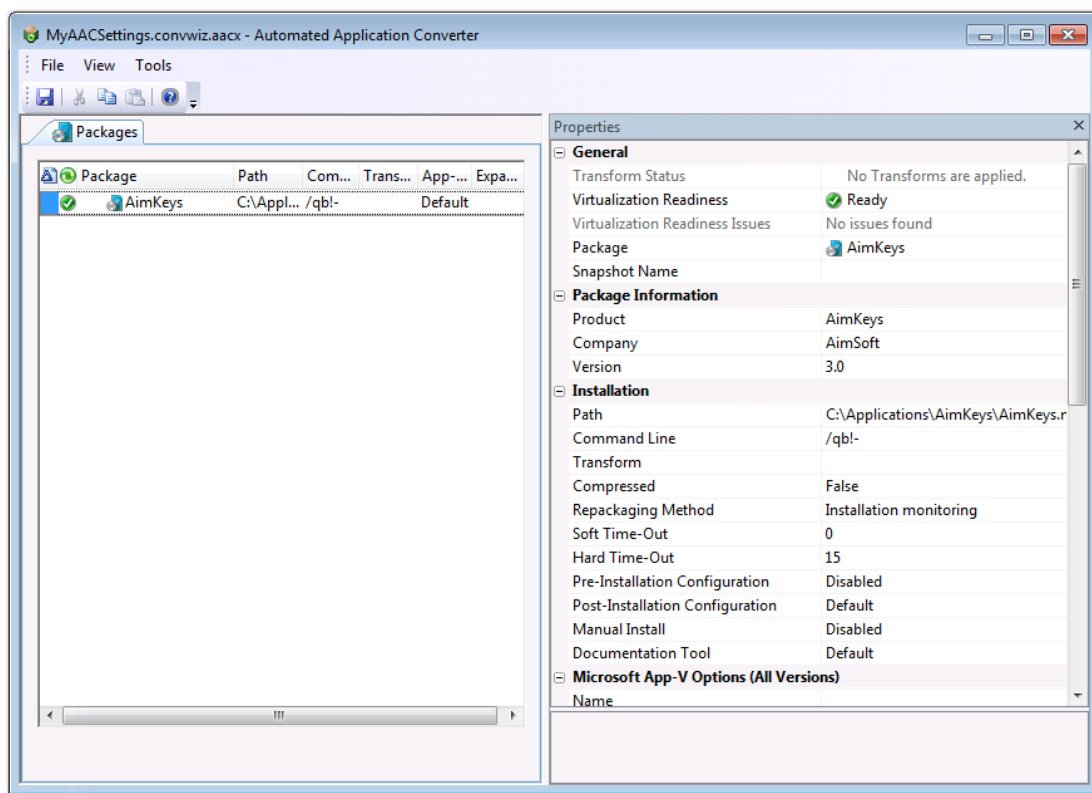
In AdminStudio 2016, you now have the option of modifying the default conversion settings for a single run of the Conversion Wizard.

There is a new panel in the Conversion Wizard entitled **Automated Application Converter Settings**. On this panel, the virtual machine platforms defined in the settings file are listed in the **Virtual Machine Platform** list, and you can choose which platform to use for this run of the Conversion Wizard.



**Figure 29:** Automated Application Converter Settings Panel of Conversion Wizard

If you want to edit additional advanced settings, you can click the **Edit Advanced Settings** button. A copy of the default conversion settings file (that is specified on the **Plugin Options > Automated Application Converter Plugin** tab of the **Options** dialog box) is opened, displaying the **Packages** tab of Automated Application Converter.



**Figure 30:** Editing the Default Conversion Settings

You can change any of these settings. When you save this file and exit the **Packages** tab of Automated Application Converter, you are returned to the Conversion Wizard where you can proceed with the conversion.

# New Wizard to Install and Launch Windows Installer Packages on a Virtual Machine for Testing

In AdminStudio 2016, the process of resetting a VM snapshot, powering it on, and copying the application for testing into it can be automated using the new **Test on Virtual Machine Wizard**, which is available with Professional and Enterprise Editions.

The **Test on Virtual Machine Wizard** uses the capability of the Automated Application Converter tool to quickly launch a specified virtual machine, install a selected Windows Installer (.msi) or installation executable (.exe) package, and enable you to launch a remote desktop session to that virtual machine so that you can perform testing.



**Note** • Both legacy installers and complex installer executables (which contain bundled Windows Installer packages) can be tested using the Test on Virtual Machine Wizard.

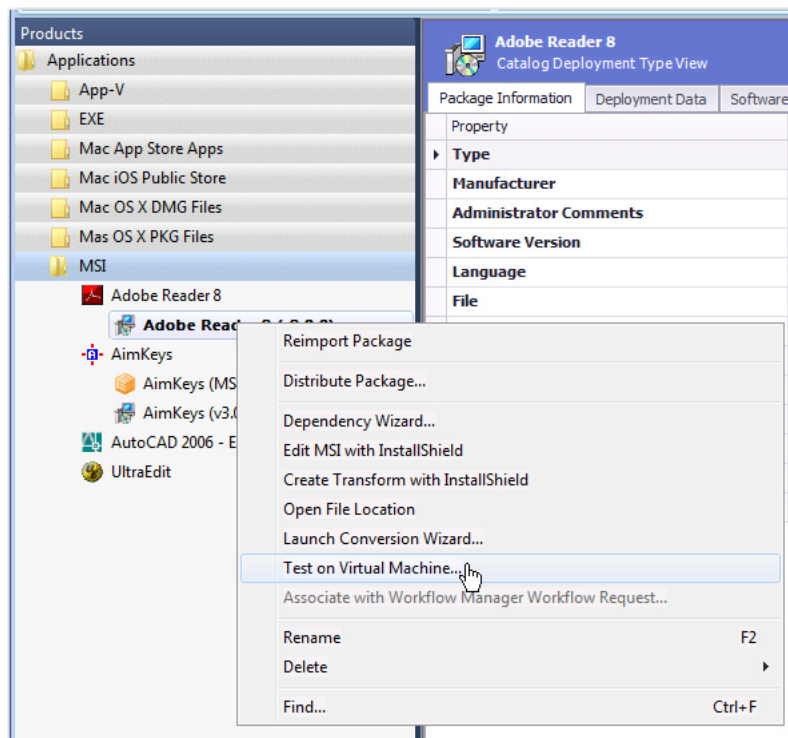
To use the Test on Virtual Machine Wizard to test a package, perform the following steps.



## Task

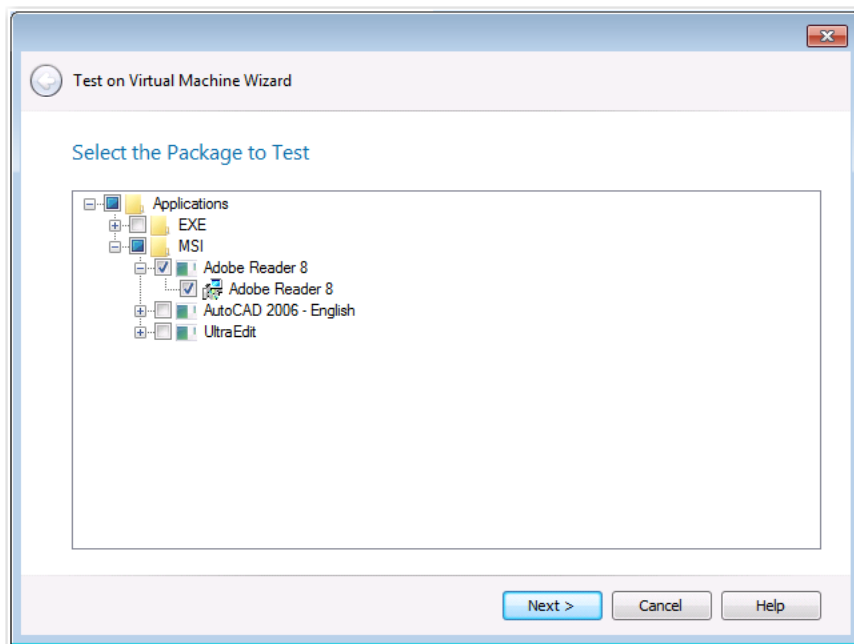
### To use the Test on Virtual Machine Wizard to test a package:

1. Right click a Windows Installer (.msi) or installer executable (.exe) package (or on an application containing an .msi or .exe package) and select **Test on Virtual Machine** from the shortcut menu.



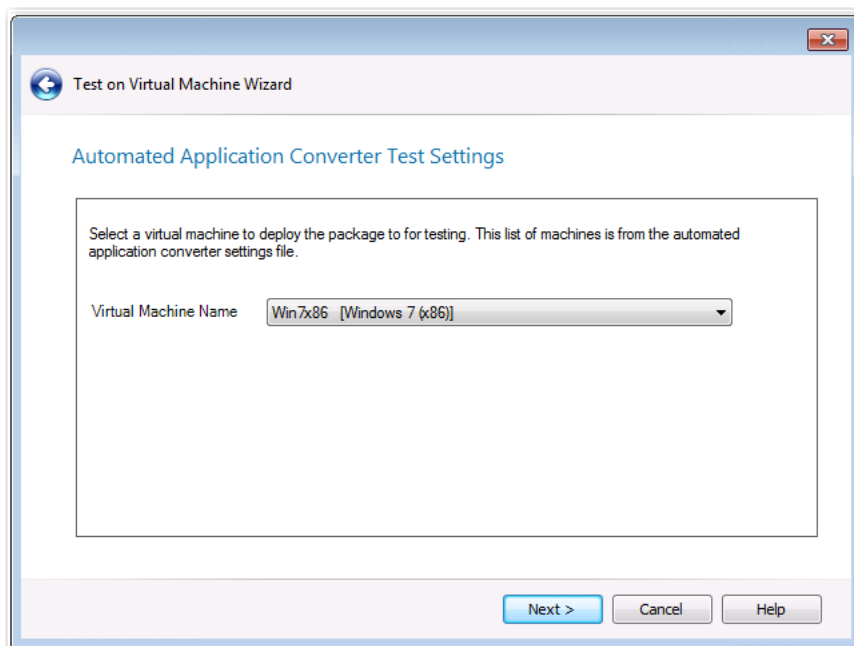
**Note** • The **Test on Virtual Machine** selection on the shortcut menu is available on both the **Catalog** and the **Test Center** tabs of Application Manager.

The **Select Package to Test** panel opens. The Application Manager tree is displayed, with the package that was selected when you opened the wizard automatically selected.

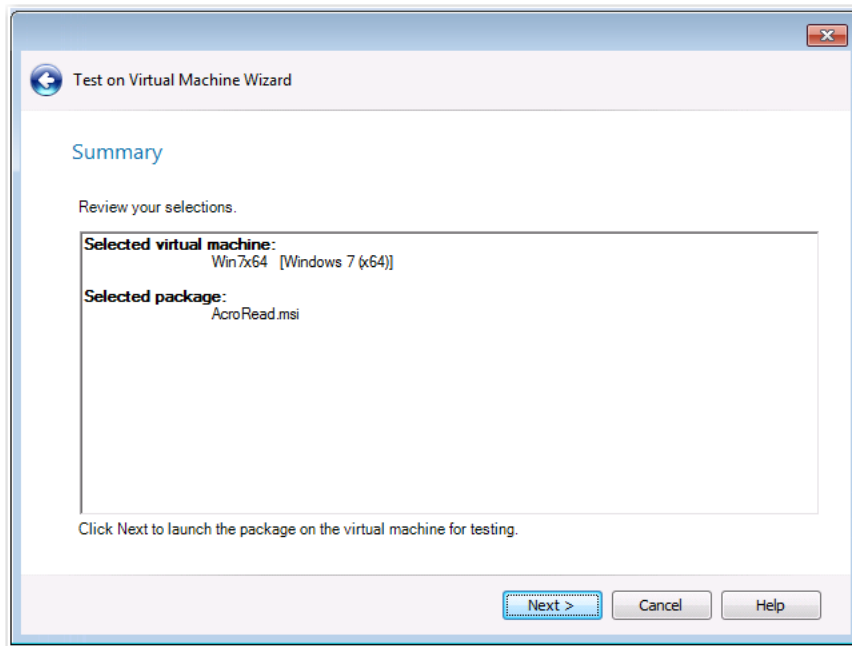


2. Confirm the selection of the package that you want to test and click **Next**.

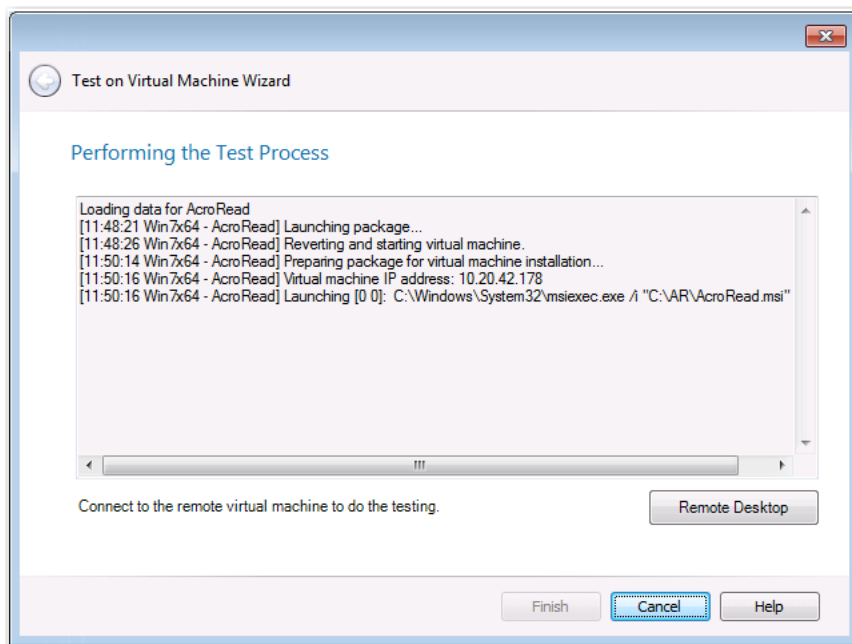
The **Automated Application Converter Test Settings** panel opens, listing the virtual machines defined in the Automated Application Converter settings file that is selected on the **Plugin Options > Automated Application Converter Plugin** tab of the **Options** dialog box:



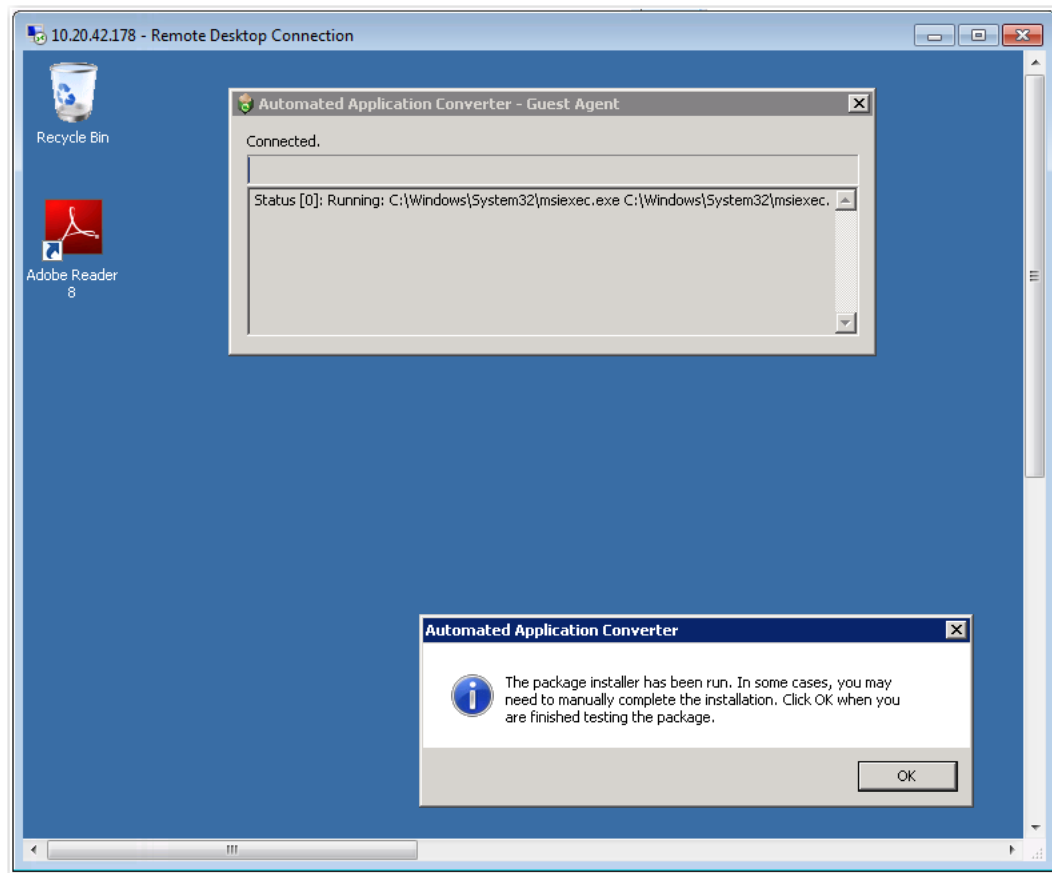
3. Select the name of the virtual machine that you want to use for testing and click **Next**. The **Summary** panel opens.



4. Click **Next** to launch the package on the specified virtual machine for testing. The **Performing the Test Process** panel opens, listing progress messages. When the package has been installed and launched on the virtual machine, the **Remote Desktop** button will become enabled.



5. Click **Remote Desktop** to connect to the virtual machine and perform testing. You may be prompted for login credentials to the virtual machine image. A Remote Desktop session opens displaying the virtual image where this package has been installed.



6. Use the installed shortcuts to launch the package and perform the desired testing.
7. When you have finished testing the package, click **OK** to close the Remote Desktop session and shut down the virtual machine.
8. Return to the **Test on Virtual Machine Wizard** and click **Finish** to close the wizard.

# Productivity Shortcuts

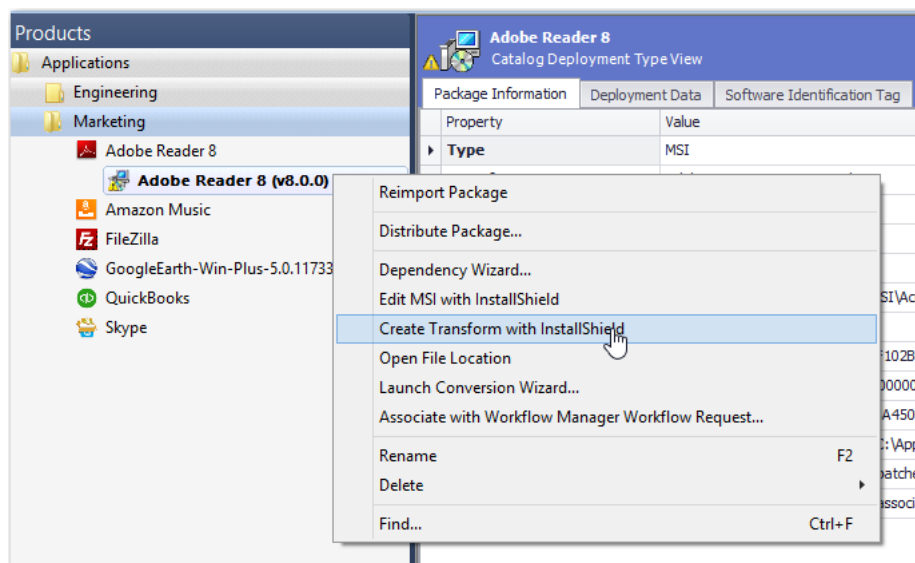
Several productivity shortcuts have been added to AdminStudio in the 2016 release.

- [New Shortcut to Automatically Create Transform for Selected Package in InstallShield](#)
- [Ability to Browse to Package Location from Application Manager Tree](#)

## New Shortcut to Automatically Create Transform for Selected Package in InstallShield

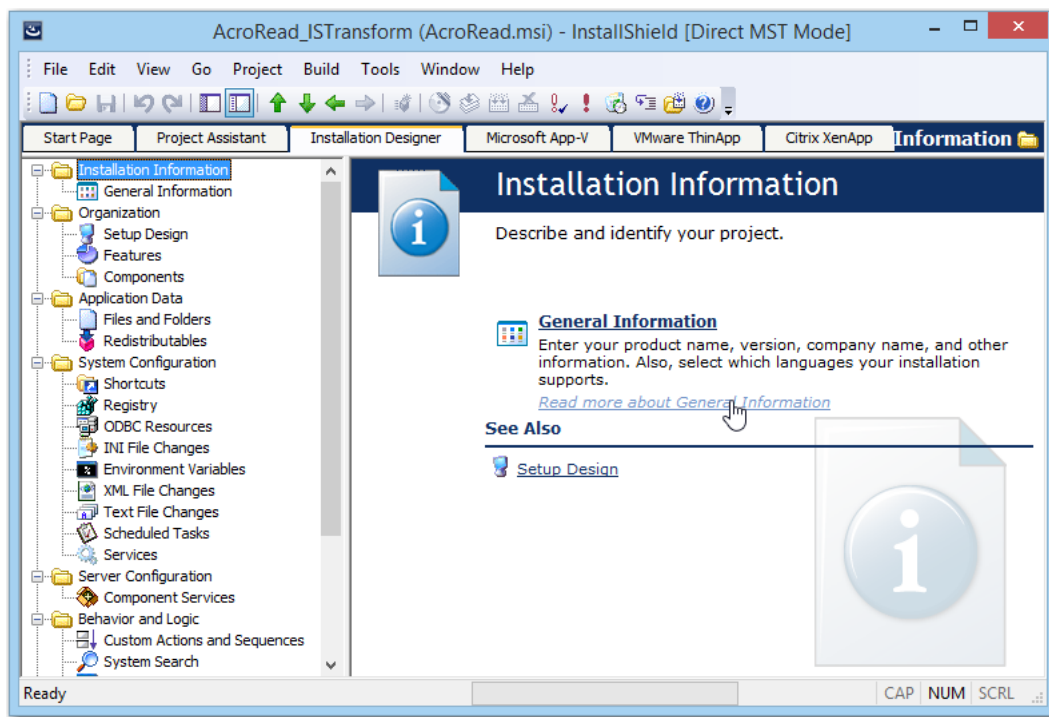
In previous releases, you were able to select **Edit with InstallShield** from the shortcut menu to quickly open a Windows Installer package in InstallShield. However, the only option you had was to open the package in Direct Edit Mode, which results in modifying the Windows Installer **.msi** file itself.

In AdminStudio 2016, you can quickly create a new transform project for a Windows Installer package by right-clicking on the package in the Application Manager tree and then selecting **Create Transform with InstallShield** from the shortcut menu.



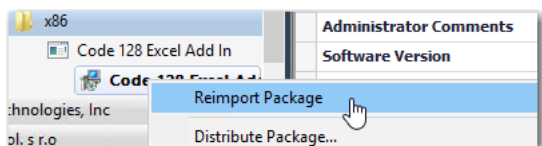
**Figure 31:** Create Transform with InstallShield

A new transform project (named **PackageName\_ISTransform.mst**) for the selected package opens in InstallShield in Direct MST mode.



**Figure 32:** Transform File Open in InstallShield Direct MST Mode

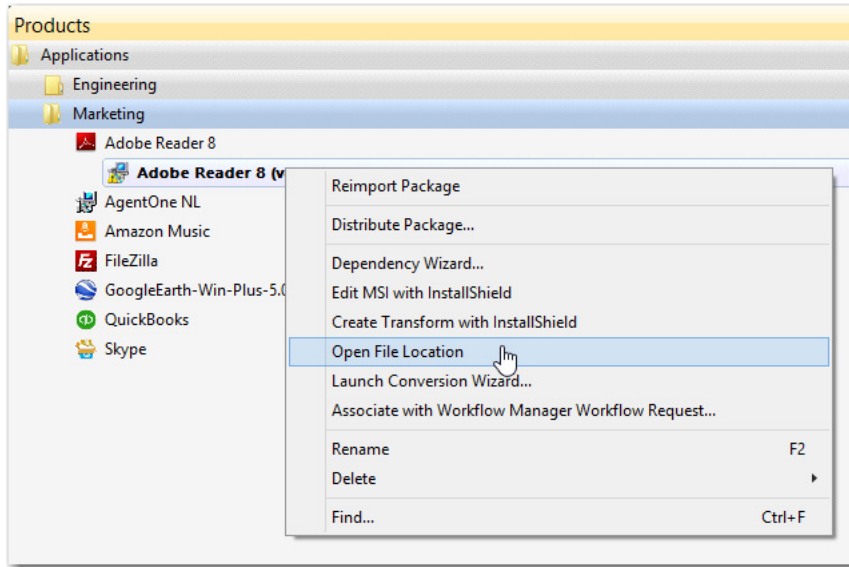
After you have finished customizing this transform file in InstallShield and have saved it, you can then reimport the Windows Installer package along with its newly created transform file into the Application Catalog by right-clicking on the Windows Installer package in the Application Manager tree and selecting **Reimport Package** from the shortcut menu. This lets Application Manager know that you are done editing the transform file.



**Figure 33:** Reimport Package Command on Shortcut Menu

## Ability to Browse to Package Location from Application Manager Tree

In AdminStudio 2016, you can quickly browse to the directory location of your source package files by right-clicking on the package in the Application Manager tree and then selecting **Open File Location** from the shortcut menu. This new option is available on both the **Catalog** and the **Test Center** tabs of Application Manager.



**Figure 34:** New “Open File Location” Command on Shortcut Menu

A new File Explorer window opens, listing the package’s source files.

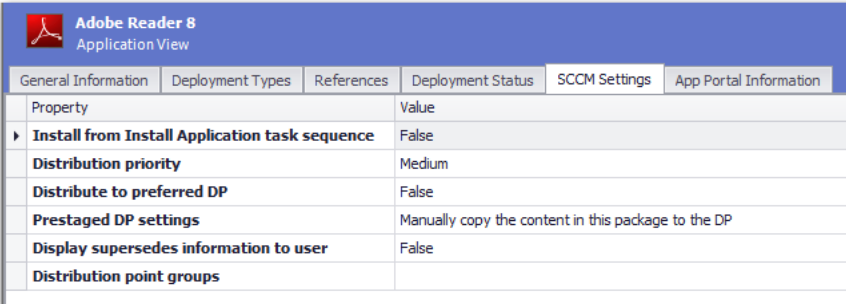
Name	Date modified	Type	Size
Abcpy.ini	3/25/2003 1:01 AM	INI File	2 KB
AcroRead.msi	10/23/2006 3:31 PM	Windows Installer ...	3,459 KB
AcroRead_IStTransform.mst	5/26/2016 8:19 AM	InstallShield proje...	20 KB
AcroRead_SoftwareId.cab	5/26/2016 10:26 AM	Cabinet File	2 KB
AcroRead_SoftwareId.mst	5/26/2016 10:26 AM	InstallShield proje...	24 KB

**Figure 35:** File Location of Imported Package’s Source Files

## New System Center Configuration Manager Settings View

In previous releases, an application's System Center Configuration Manager settings were listed on the **General Information** tab of the **Application View**. These settings were displayed whether or not you had configured a connection to a System Center Configuration Manager server.

In AdminStudio 2016, a new tab has been added to the **Application View** entitled **SCCM Settings** where these System Center Configuration Manager settings are now displayed. The **SCCM Settings** tab is only displayed if you have set up a connection to a System Center Configuration Manager server.

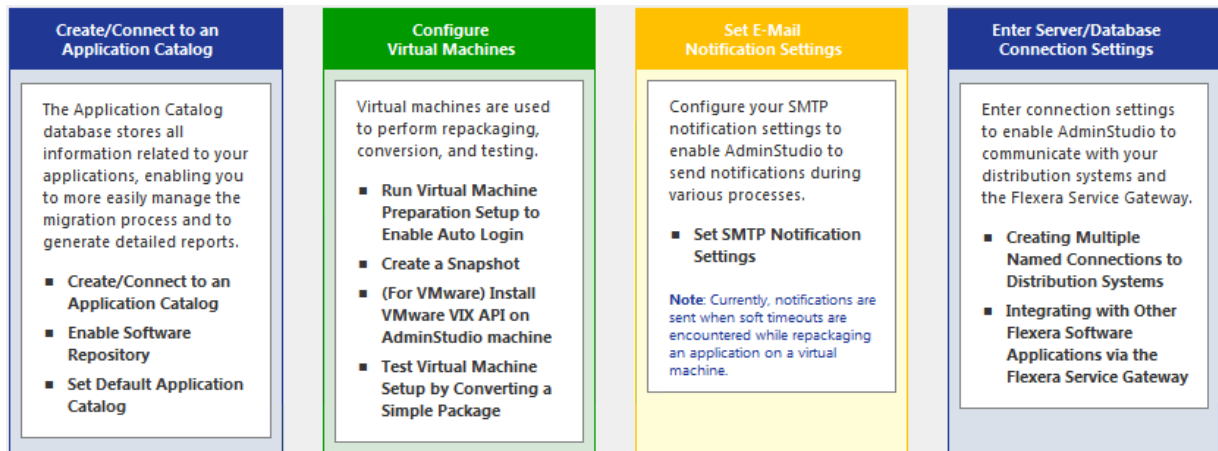
The screenshot shows the 'Application View' window for 'Adobe Reader 8'. The 'SCCM Settings' tab is selected, displaying a table of properties and their values. The table has two columns: 'Property' and 'Value'. The properties listed are: 'Install from Install Application task sequence' (False), 'Distribution priority' (Medium), 'Distribute to preferred DP' (False), 'Prestaged DP settings' (Manually copy the content in this package to the DP), 'Display supersedes information to user' (False), and 'Distribution point groups' (empty).

Property	Value
Install from Install Application task sequence	False
Distribution priority	Medium
Distribute to preferred DP	False
Prestaged DP settings	Manually copy the content in this package to the DP
Display supersedes information to user	False
Distribution point groups	

**Figure 36:** SCCM Settings Tab of Application View

# Setting Up AdminStudio Infrastructure

The flowchart on the **Set Up Infrastructure** tab of the AdminStudio Start page lists the steps you need to perform before you can get started using AdminStudio.



**Figure 37:** Set Up Infrastructure Tab of AdminStudio Start Page

These are specific one-time set-up tasks that you need to perform prior to using AdminStudio. To set up AdminStudio infrastructure, perform the following exercises:

- [Creating an Application Catalog](#)
- [Configuring a Virtual Machine](#)
- [Setting E-Mail Notification Settings](#)
- [Entering Server/Database Connection Settings](#)


## Creating an Application Catalog

With AdminStudio, you manage your applications and their deployment types in an Application Catalog database, which stores all package information, including test results. This enables you to perform enterprise level data checking. You can share your Application Catalog between multiple AdminStudio users.

AdminStudio and many of its tools (such as Application Manager) require you to be connected to an Application Catalog, while others give you the option of working with packages on a local or network directory or from Microsoft System Center Configuration Manager Server.

In this exercise, you will create a new AdminStudio Application Catalog and set it as the default.

**Table 3 • Create/Connect to an Application Catalog**

#	Step	Instructions	Result
1.	<b>Create an Application Catalog</b>	<p>Open AdminStudio and create a new SQL Server Application Catalog database named <b>AdminStudio Evaluation Catalog</b>, as described in <a href="#">Creating New Application Catalogs Using the AdminStudio Interface</a>.</p>  <p><b>Note •</b> On the <b>Select Software Repository Location</b> panel of the <b>Application Catalog Wizard</b>, do NOT select the <b>Enable Software Repository</b> option.</p>	AdminStudio is open and connected to a new Application Catalog named <b>AdminStudio Evaluation Catalog</b> .

## Configuring a Virtual Machine

Virtual machines are used by Automated Application Converter during automated repackaging (performed during conversion to virtual applications) and when testing applications.

You need to prepare each virtual machine that you are going to use with the Automated Application Converter to perform automated repackaging or testing by doing the following:

- **Run Virtual Machine Preparation setup**—On each virtual machine you are going to use with the Automated Application Converter, run the Virtual Machine Preparation setup, an application that will enable automatic login. You need to run this application one time on all of the virtual machines that you are going to use with the Automated Application Converter.
- **Create a snapshot**—After you have run the Virtual Machine Preparation setup on a virtual machine, you need to shut it down and create a snapshot named **AutoRepack\_Base**. This enables the Automated Application Converter to revert the virtual image to a clean state after each repackaging run.
- **Install VMware VIX API (VMware only)**—In order for the Automated Application Converter to perform automated repackaging, it needs to communicate with the virtualization technology that you are using. If you are using VMware virtualization technology (VMware ESX or ESXi Server or a local VMware Workstation 6.5 or later), you need to have the VMware VIX API installed on the same machine as the Automated Application Converter.

In this exercise, you will configure a virtual machine for use with Automated Application Converter.

**Table 4 • Configure Virtual Machines**

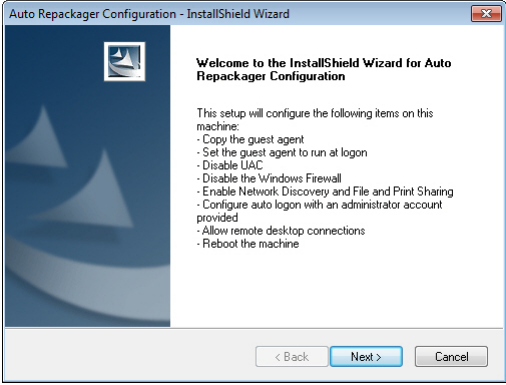
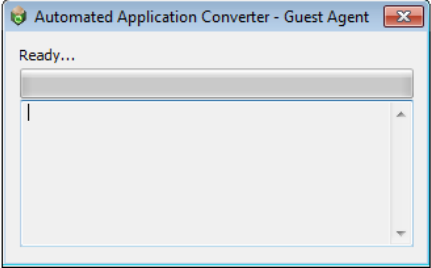


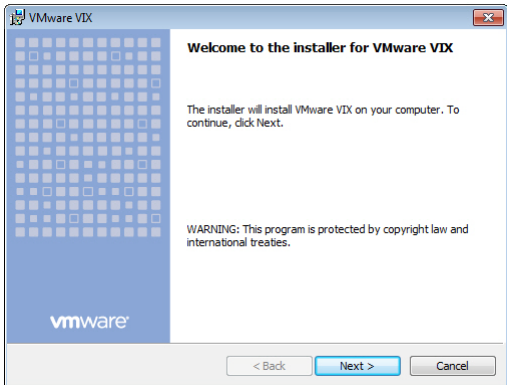
#	Step	Instructions	Result
1.	<b>Run Virtual Machine Preparation setup to enable auto login</b>	<p>On a Microsoft Hyper-V Server image, VMware ESX/ESXi Server image, or VMware Workstation (6.5+) image, run the virtual machine preparation setup.</p> <div></div> <div></div> <p> <b>Note</b> • For instructions, see <a href="#">Preparing Your Virtual Machines for Use With the Automated Application Converter</a>.</p>	<p>When you restart the virtual machine image, you are automatically logged in and <b>GuestAgent.exe</b> is launched.</p>
2.	<b>Create a snapshot for repackaging</b>	<p>On the prepared virtual image, create a clean snapshot named <b>AutoRepack_Base</b>.</p> <div> <b>Note</b> • For instructions, see <a href="#">Taking a Snapshot in Preparing Your Virtual Machines for Use With the Automated Application Converter</a>.</div>	<p>A clean snapshot named <b>AutoRepack_Base</b> exists on the virtual machine.</p>

Table 4 • Configure Virtual Machines

#	Step	Instructions	Result
3.	Install VMware VIX	If you are using a VMware ESX/ESXi Server or VMware Workstation image, you need to install the VMware VIX API on the AdminStudio machine.	The VMware VIX API is installed successfully.



To install the VMware VIX API on the AdminStudio machine, do one of the following:


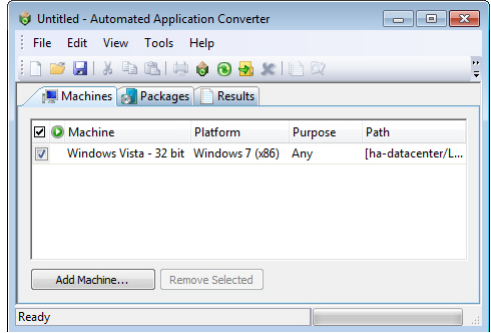
- Install VMware Workstation on the AdminStudio machine.
- Download and install the VMware VIX API on the AdminStudio machine. You can download the VMware VIX API from the following location:

<http://www.vmware.com/support/developer/vix-api>



**Note** • For instructions, see [VMware VIX API Requirement](#).

**Table 4 • Configure Virtual Machines**

#	Step	Instructions	Result
4.	<b>Add a virtual machine to Automated Application Converter</b>	<p>Open Automated Application Converter by clicking <b>Add Virtual Machines</b> on the <b>Set Up Infrastructure</b> tab of the AdminStudio Start page. The <b>Application Conversion Project Wizard</b> opens.</p> <p>Cancel the wizard. Then open the <b>Machines</b> tab and follow the instructions in <a href="#">Adding Virtual Machines Using the Virtual Machine Import Wizard</a> to add the prepared virtual machine to the <b>Machines</b> tab.</p> <p></p> <p><b>Note •</b> When prompted, save the Automated Application Converter project file to the following directory:</p> <p><b>C:\Users\YOURNAME\Documents\MyProject.aacx</b></p> <p>All of the connection information for the virtual machine that you have set up is stored in the project file, so remember the name and location of your Automated Application Converter project file.</p>	<p>A virtual machine is listed on the <b>Machines</b> tab of Automated Application Converter.</p> 


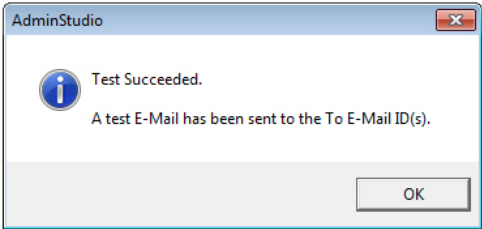
## Setting E-Mail Notification Settings

To enable AdminStudio to send you e-mail notifications during various processes, you need to configure your SMTP notification settings.

Currently, e-mail notifications are sent when soft time-outs are encountered while using Automated Application Converter to repackage an application on a virtual machine.

In this exercise, you will enter the SMTP settings for e-mail notifications. This enables AdminStudio to send notifications when a soft time out is encountered during repackaging on a virtual machine by Automated Application Converter.

**Table 5 • Set E-Mail Notification Settings**

#	Step	Instructions	Result
1.	<b>Set SMTP Notification Settings</b>	<p>On the <b>Notification Settings</b> tab of the AdminStudio <b>Options</b> dialog box, enter your SMTP settings for e-mail notifications.</p>  <p><b>Note</b> • For instructions, see <a href="#">Setting E-Mail Notification Settings</a>.</p>	<p>When you click <b>Test</b> on the <b>Notifications Settings</b> tab, a successful message opens.</p> 




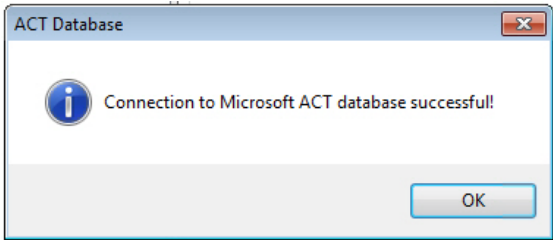
# Entering Server/Database Connection Settings

In AdminStudio 2016, you can define multiple named connections to System Center Configuration Manager, Citrix XenApp, Symantec Altiris Client Management Suite, Microsoft Server App-V, JAMF Casper Suite, and AirWatch distribution systems. This enables you to both have multiple connections easily available during import and distribution, and to refer to those connection settings by name in Platform API commands.

You need to specify at least one named connection to a distribution system in order for Application Manager to import packages, distribute applications, or report on application deployment status.

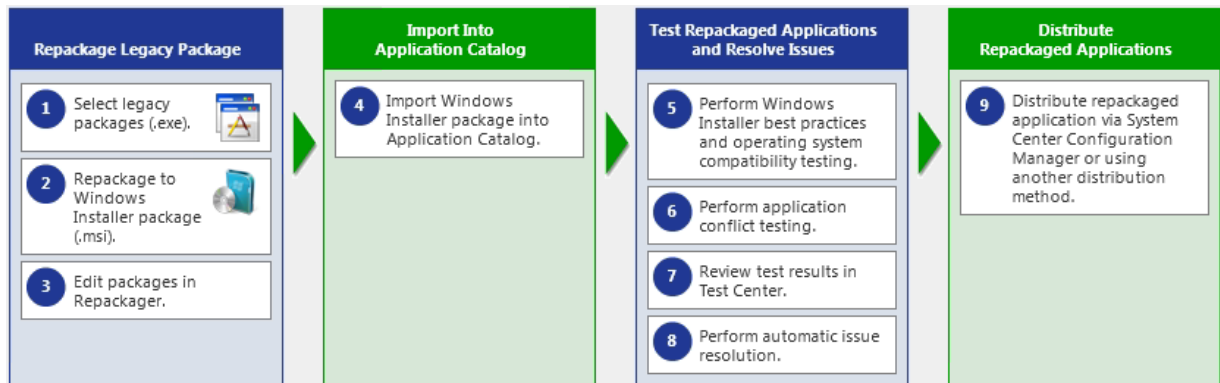
To enable AdminStudio to display data from your Microsoft ACT (Application Compatibility Toolkit) database in Test Center views and reports, you need to enter connection information for your Microsoft ACT database.

**Table 6 • Enter Server Connection Settings**

#	Step	Instructions	Result
1.	<b>Enter System Center Configuration Manager connection settings</b>	<p>Open the Application Manager <b>Options</b> dialog box, and on the <b>Distribution System</b> tab, create a named connection to System Center 2012 Configuration Manager.</p>  <p><b>Note</b> • For instructions, see <a href="#">Creating a New Distribution System Connection Setting</a></p>	<p>When you click <b>Test</b> on the <b>Distribution System</b> tab, the following message is displayed:</p> <p>Connection to <i>ServerName</i> Succeeded</p>
2.	<b>Entering Microsoft ACT database connection settings</b>	<p>Open the Application Manager <b>Options</b> dialog box, and on the <b>Microsoft ACT</b> tab, enter Microsoft ACT database connection information.</p>  <p><b>Note</b> • For instructions, see <a href="#">Entering Microsoft ACT Database Connection Settings</a></p>  <p><b>Note</b> • This is an optional step that you can perform if your organization has a Microsoft ACT database and you want to display that data in Application Manager.</p>	<p>When you click <b>Test</b> on the <b>Microsoft ACT</b> tab, a successful message opens:</p> 

# Migrating to Windows Installer

The flowchart on the **Migrate to Windows Installer** tab of the AdminStudio Start page lists the steps you need to perform to migrate a sample setup (such as an **.exe** file) to a deployable Windows Installer package.



**Figure 38:** Migrate to Windows Installer Tab of AdminStudio Start Page

In this section, you will convert a sample setup named **SampleApplicationSetup.exe** to a Windows Installer Package, import it into the Application Catalog, test it for best practices, operating system compatibility, and application conflicts, and then prepare it for distribution using Distribution Wizard.



**Important** • It is preferable to repackage 32-bit applications on 32-bit operating systems. In this exercise, we will be repackaging a 32-bit application.



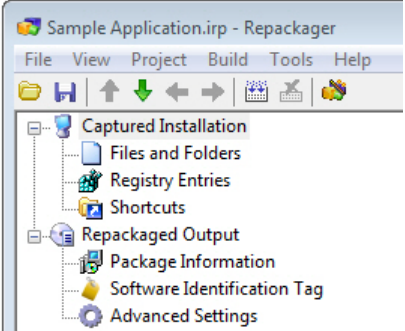
To migrate a sample application to a Windows Installer package, perform the following steps:

- [Repackaging a Sample Package](#)
- [Importing Packages into the Application Catalog](#)
- [Testing a Repackaged Application and Resolving Issues](#)


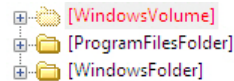

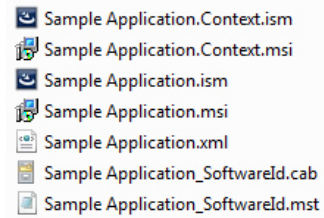
# Repackaging a Sample Package

In this procedure, you will repack a sample setup, perform some minor edits in Repackager, and then build a Windows Installer package.

**Table 7 • Repackage a Sample Package**

#	Step	Instructions	Result
1.	<b>Select and repackage a sample package (.exe) to a Windows Installer Package (.msi)</b>	<p>Use Repackaging Wizard (<b>Installation Monitoring</b> method) to repackage the following sample setup:</p> <p><b>C:\AS2016EvalGuideDataFiles\SampleApplicationSetup\SampleApplicationSetup.exe</b></p> <p> <b>Important</b> • It is recommended that you repackage this sample package on a clean machine.</p> <p>Save the captured data in the following directory:</p> <p><b>C:\Packages</b></p> <p> <b>Note</b> • For instructions, see <a href="#">Repackaging Using the Installation Monitoring Method</a>.</p>	<p>The captured data was converted into a Repackager project file (<b>SampleApplication.irp</b>) and opened in the Repackager interface.</p> 

**Table 7 • Repackage a Sample Package**

#	Step	Instructions	Result
3.	<b>Edit package in Repackager and build Windows Installer package</b>	<p>To exclude files that are not part of the package, open the <b>Files and Folders</b> view, right-click on the <b>[WindowsVolume]</b> folder and select <b>Exclude All</b> from the context menu. Click <b>Save</b>.</p> <p></p> <p><b>Note</b> • For instructions, see <a href="#">Excluding All Files in a Directory</a>.</p>	<p>The <b>[WindowsVolume]</b> folder is displayed in red to indicate that it is excluded:</p> <p></p>
		<p>Open the <b>Repackaged Output</b> view and click <b>Build</b> to build a Windows Installer package.</p> <p></p> <p><b>Note</b> • For instructions, see <a href="#">Building a Windows Installer Package</a>.</p>	<p>The Repackager project file has been converted to a Windows Installer package, located in the following directory:</p> <p><b>C:\Packages\MSI_Package\SampleApplication.msi</b></p>
		<p>Copy all of the files in the <b>C:\Packages\MSI_Package</b> directory (including the <b>SampleApplication.msi</b> file) to the following directory on the machine where AdminStudio is installed:</p> <p><b>C:\AS2016EvalGuideDataFiles\SampleApplicationSetup\</b></p>	<p>New Windows Installer package (and other associated files) are now in the same main directory as the other evaluation data files.</p> <p></p>

# Importing Packages into the Application Catalog

In this procedure, you will import Windows Installer packages into the Application Catalog, including the one you created in [Repackaging a Sample Package](#):

**Table 8 • Import Into Application Catalog**


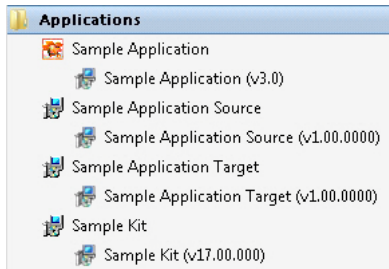

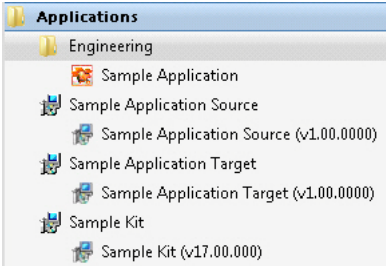
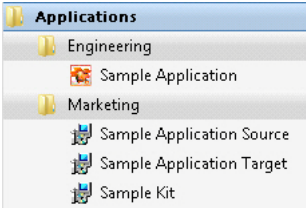
#	Step	Instructions	Result
4.	<b>Import Windows Installer package into Application Catalog</b>	<p>Before beginning import, open the Application Manager <b>Options</b> dialog box and clear the selection of the <b>Automatically Execute Tests After Import</b> option.</p> <p>Next, use the Import Wizard to import all of the packages in the <b>AS2016EvalGuideDataFiles</b> directory.</p> <ul style="list-style-type: none"> <li>On the <b>Source</b> panel, select <b>Folder of multiple applications</b>.</li> <li>On the <b>Package Type Selection</b> panel, select the <b>Microsoft Windows Installer package (.msi)</b> option</li> <li>On the <b>Package Folder Selection</b> panel, select the <b>C:\AS2016EvalGuideDataFiles</b> directory.</li> <li>On the <b>Select Applications</b> panel, leave all of the applications selected.</li> <li>On the <b>Destination Group</b> panel, select the <b>Applications</b> folder in the tree. Do not select the <b>Create subgroups based on source folder structure</b> option.</li> </ul> <p> <b>Note</b> • For instructions on how to import a directory of packages into the Application Catalog, see <a href="#">Importing a Folder of Multiple Packages</a>.</p>	<p>The packages are now listed in the Application Manager tree, each under its own Application node:</p> 


Table 8 • Import Into Application Catalog

#	Step	Instructions	Result
4.	<b>Import Windows Installer package into Application Catalog</b>  (Continued)	<p>Create a new group in the Application Manager tree named <b>Engineering</b> and move the <b>Sample Application</b> into that new group.</p> <p> <b>Note</b> • For instructions, see <a href="#">Adding Groups</a> and <a href="#">Organizing Applications in Application Manager</a>.</p>	<p>The Application Manager tree should now be organized as follows:</p> 
		<p>Create another new group in the Application Manager tree named <b>Marketing</b>, and move the other three applications into that group.</p>	<p>The Application Manager tree should now be organized as follows:</p> 

# Testing a Repackaged Application and Resolving Issues

In this procedure, you will test the Windows Installer packages you imported into the Application Catalog, and then distribute a package to a network location.

**Table 9 • Test and Distribute Repackaged Applications**

#	Step	Instructions	Results
5.	<b>Perform Windows Installer best practices and OS compatibility testing</b>	To perform Windows Installer best practices and operating system compatibility testing on all of the packages in the Application Catalog, first select the <b>Test Center</b> tab in the Application Manager ribbon. Then, select the <b>Applications</b> group in the Application Manager tree, and click <b>Execute Tests</b> .	

**Note •** For more information, see [Performing Compatibility and Best Practices Testing](#).

When testing is finished, view the test results by selecting a Windows Installer package in the tree to open the **Summary** tab of the **Test Center Deployment Type View**, as shown below:


Sample Application Test Center Deployment Type View							
Summary	Operating System Compatibility	Application Virtualization Compatibility	Remote Application Publishing Compatibility	Best Practices and Risk Assessment	Application Conflicts		
Test Category		Executed	Errors	Warnings	Auto Fix Available	Issues Suppressed	Overall Assessment
Operating System Compatibility		274	4	222	40	0	
Windows 7 32-bit		41	0	37	6	0	
Windows 7 64-bit		43	1	37	7	0	
Windows Server 2008 R2		46	1	37	7	0	
Windows 8 32-bit		46	0	37	6	0	
Windows 8 64-bit		48	1	37	7	0	
Windows Server 2012		50	1	37	7	0	
Application Virtualization Compatibility		111	2	0	-	-	
Microsoft App-V 4.x		27	0	0	-	-	
Microsoft App-V 5.x		24	0	0	-	-	
VMware ThinApp		24	1	0	-	-	
Citrix XenApp Profile		28	1	0	-	-	
Symantec Workspace Virtualization		8	0	0	-	-	
Remote Application Publishing Compatibility		9	10	0	0	0	
Remote Application Services Tests		9	10	0	0	0	
Best Practices and Risk Assessment		115	1	9	0	0	
Windows Installer Internal Consistency Evaluators		103	1	9	-	0	
Windows Installer Best Practices		12	0	0	0	0	
Application Conflicts		0	0	0	0	0	
Package Data Conflicts		0	0	0	0	0	

In Test Center views, groups, applications, and packages are assigned a test status in each test group using status icons. For packages, the status icon identifies that package's test status (as described in [About Status Icons](#)). For groups and applications, Test Center considers all of the packages in that group or application, and displays the status icon for the package that has the status at the highest hierarchical level, as described in the **Hierarchical Level of Status Icons** section of the [About Status Icons](#) help topic.



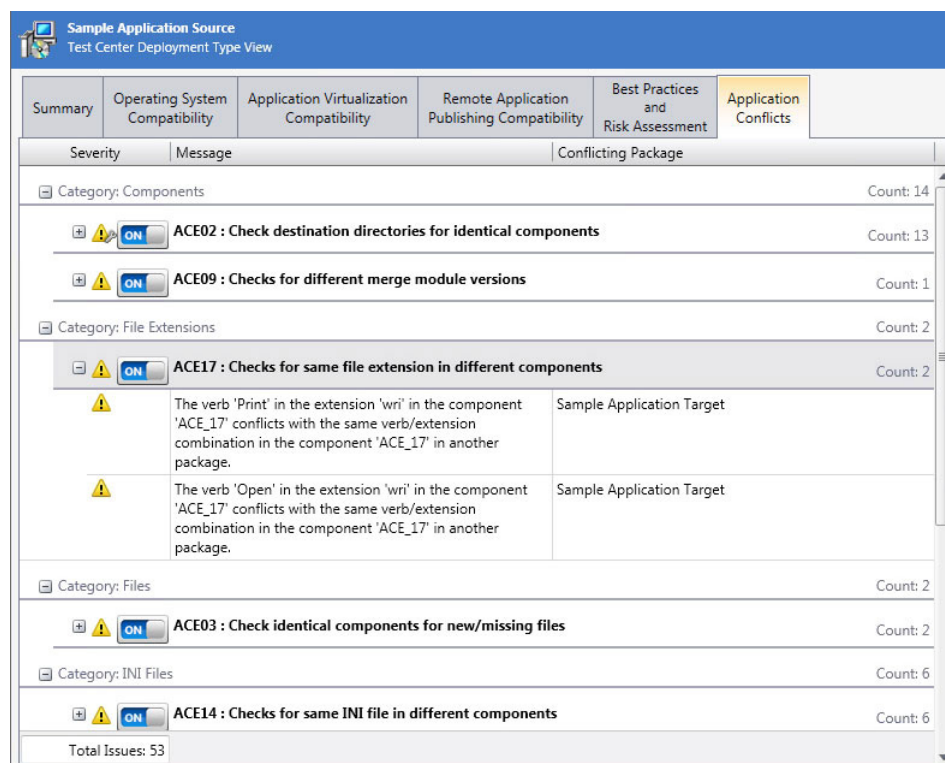
**Note •** For more information, see [Viewing Summary Test Results](#).

**Table 9 • Test and Distribute Repackaged Applications**

#	Step	Instructions	Results
6.	<b>Perform application conflict testing</b>	<p>Use the Conflict Wizard to detect conflicts between the following two packages:</p> <ul style="list-style-type: none"> <li>• <b>Source:</b> Sample Application Source</li> <li>• <b>Target:</b> Sample Application Target</li> </ul> 	

**Note** • For instructions, see [Testing for Conflicts Between Packages](#).

7. **Review test results in Test Center** When application conflict testing is finished, view the test results by selecting the Sample Application Source MSI package in the tree, and then selecting the **Application Conflicts** tab of the **Test Center Deployment Type View**. Errors and warnings are listed. Click the plus sign next to a test name to view individual error/warning messages for that package:






Next, click the suppress (ON/OFF) button next to ACE09 to suppress that test from test totals and from automatic resolution. The button toggles to the OFF position and the error icon turns to gray.



**Note** • For more information, see the following topics:

- [Viewing Detailed Package Test Results](#)
- [Viewing Application Conflicts Test Results](#)
- [Filtering Test Results by Suppressing Errors/Warnings](#)



**Table 9 • Test and Distribute Repackaged Applications**

#	Step	Instructions	Results
8.	<b>Perform automatic issue resolution</b>	<p>Issues for which automatic fixes are available are identified by the Error With Fix or Warning With Fix icon:</p> <p> </p> <p>To automatically resolve all issues for which automatic fixes are available, select the <b>Applications</b> group node in the tree and click <b>Resolve Issues</b> in the <b>Test Center</b> tab of the ribbon.</p> <p></p> <p><b>Note •</b> For more information, see <a href="#">Performing Automatic Issue Resolution</a>.</p>	<p>Issue resolution begins, progress messages appear in the Output window, and Application Manager performs the following tasks:</p> <ul style="list-style-type: none"> <li>• <b>Reruns tests</b>—Application Manager reruns all of the selected tests to ensure that the issues that it is going to resolve still exist in the current version of the package and its associated transforms.</li> <li>• <b>Creates transform files</b>—To resolve issues, Application Manager generates fix transform files.</li> <li>• <b>Reimports packages</b>—Application Manager then automatically reimports each package and its fix transform files into the Application Catalog.</li> </ul> <p>When issue resolution and reimporting is complete, look at the <b>Test Center Group View</b>, <b>Application View</b>, or <b>Deployment Type View</b> of the package, application, or group that you tested. You will see that the Error With Fix and Warning With Fix icons have been replaced with the status icon with the next highest level (as described in the <b>Hierarchical Level of Status Icons</b> section of the <a href="#">About Status Icons</a> help topic) in that test category.</p>

# Distributing a Repackaged Application

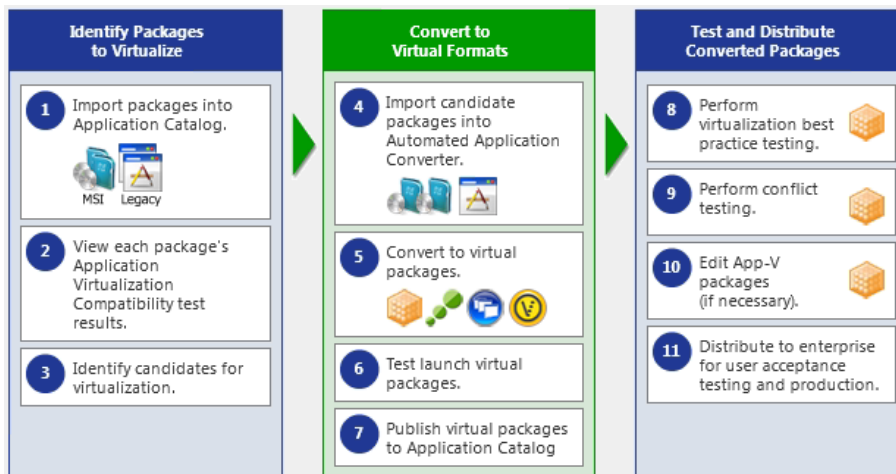
In this procedure, you will distribute a Windows Installer package to a network location.

**Table 10 •** Distribute a Repackaged Application

#	Step	Instructions	Results
9.	<b>Distribute repackaged application</b>	<p>Use the Legacy Distribution Wizard to distribute the <b>Sample Application</b> Windows Installer package to a <b>Network</b> location. You open the Legacy Distribution Wizard by opening the <b>Catalog</b> tab of the ribbon, selecting the Windows Installer package node and then selecting <b>Distribute Package</b> from the context menu.</p> <p>For instructions on how to distribute a package to a network location, see <a href="#">Distributing Packages to Network Locations</a>.</p> <div>  <p><b>Note •</b> To distribute an <b>application</b> to a System Center 2012 Configuration Manager, Citrix XenApp, Symantec Altiris, JAMF Casper Suite, or AirWatch, select the application node in the tree and then click the <b>Distribute</b> button in the ribbon. You must have already set up a named connection to that distribution system on the <b>Options</b> dialog box.</p> </div> <div>  <p><b>Note •</b> You can publish applications containing App-V 4.x packages and Citrix XenApp profiles to Citrix XenApp server, and can publish applications containing Windows Installer, Symantec Workspace, VMware ThinApp, or legacy installers to Symantec Altiris server.</p> <p>If an application contains a package of an unsupported deployment type, that package will be ignored.</p> </div>	<b>SampleApplication.msi</b> is copied to the specified network location, making it available to your enterprise.

# Migrating to Application Virtualization

The flowchart on the **Migrate to Application Virtualization** tab of the AdminStudio Start page lists the steps you need to perform to migrate your application portfolio into virtual applications that are ready for deployment within the enterprise.



**Figure 39:** Migrate to Application Virtualization Tab of AdminStudio Start Page

In this section, you will use the Automated Application Converter to convert Windows Installer packages to virtual packages, and then test and distribute the virtual packages.

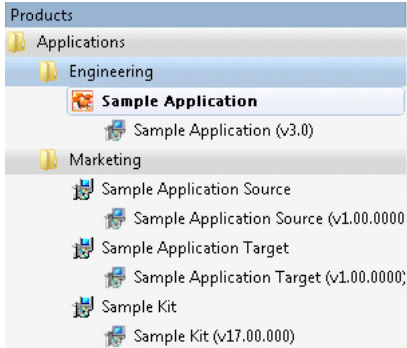
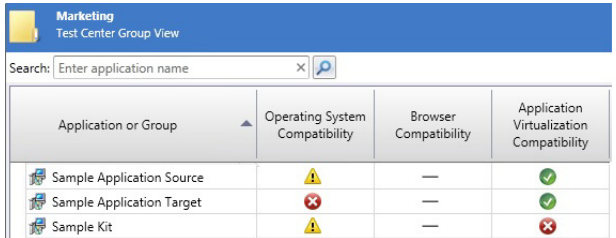
To migrate your application portfolio into virtual applications, perform the following steps:

- [Identifying Packages to Virtualize](#)
- [Converting to Virtual Formats](#)
- [Testing and Distributing Converted Packages](#)

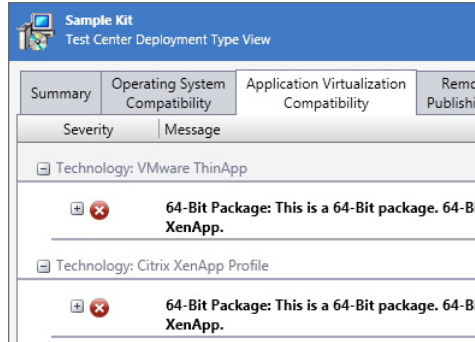
# Identifying Packages to Virtualize

In this procedure, you will import packages into the Application Catalog and identify the packages you want to virtualize.

**Table 11 • Identify Packages to Virtualize**

#	Step	Instructions	Results																
1.	<b>Import packages into Application Catalog.</b>	Open Application Manager and locate the packages that you imported in <a href="#">Importing Packages into the Application Catalog</a> .	<p>The four Windows Installer packages are listed in the Application Manager tree:</p> 																
2.	<b>View package's Application Virtualization Compatibility test results.</b>	To view application virtualization compatibility test results, open the <b>Test Center</b> tab, and then select the <b>Marketing</b> group in the tree to open the <b>Test Center Group View</b> .	<p>The packages' application virtualization compatibility test results are listed in the <b>Application Virtualization Compatibility</b> column of the <b>Test Center Group View</b>.</p>  <table border="1"> <thead> <tr> <th>Application or Group</th><th>Operating System Compatibility</th><th>Browser Compatibility</th><th>Application Virtualization Compatibility</th></tr> </thead> <tbody> <tr> <td>Sample Application Source</td><td>⚠</td><td>—</td><td>✓</td></tr> <tr> <td>Sample Application Target</td><td>✗</td><td>—</td><td>✓</td></tr> <tr> <td>Sample Kit</td><td>⚠</td><td>—</td><td>✗</td></tr> </tbody> </table>	Application or Group	Operating System Compatibility	Browser Compatibility	Application Virtualization Compatibility	Sample Application Source	⚠	—	✓	Sample Application Target	✗	—	✓	Sample Kit	⚠	—	✗
Application or Group	Operating System Compatibility	Browser Compatibility	Application Virtualization Compatibility																
Sample Application Source	⚠	—	✓																
Sample Application Target	✗	—	✓																
Sample Kit	⚠	—	✗																


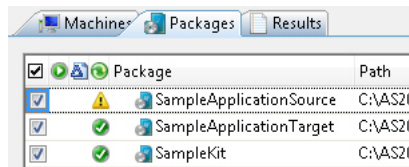
**Table 11 • Identify Packages to Virtualize**

#	Step	Instructions	Results
3.	<b>Identify candidates for virtualization.</b>	<p>You will notice that in the <b>Application Virtualization Compatibility</b> column of the <b>Test Center Group View</b>, two of the packages have a Ready status (Sample Application Source and Sample Application Target), while the other has an Error status (Sample Kit).</p> <p>Therefore, for the package with the Error status, open the <b>Application Virtualization Compatibility</b> tab of the <b>Test Center Deployment Type</b> view to view the error messages.</p>	<p>You will notice that the errors were generated because the packages are 64-bit packages, and 64-bit packages are not supported by ThinApp or XenApp.</p>  <p>However, since 64-bit packages are supported by Microsoft App-V, this package is ready for conversion to App-V format.</p>



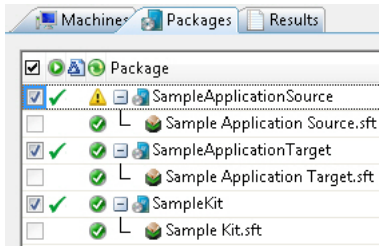


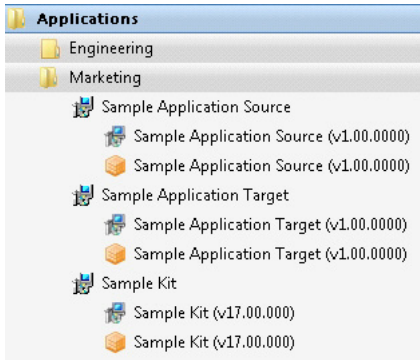

## Converting to Virtual Formats

In this procedure, you will use Automated Application Converter to convert Windows Installer packages to App-V packages.

**Table 12 • Convert to Virtual Formats**

#	Step	Instructions	Results
4.	<b>Import candidate packages into Automated Application Converter.</b>	<p>Open Automated Application Converter, open the existing project you created in <a href="#">Configuring a Virtual Machine</a>, and use the <b>Package Import Wizard</b> to add the packages that you identified in <a href="#">Identifying Packages to Virtualize</a>.</p> <p> <b>Note</b> • For instructions, see <a href="#">Selecting Packages from an AdminStudio Application Catalog</a>.</p>	<p>Packages are listed on the <b>Packages</b> tab.</p> 



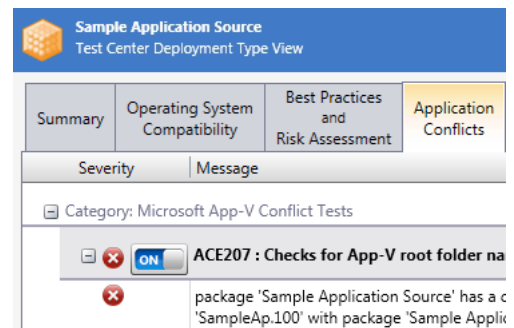
**Table 12 • Convert to Virtual Formats**

#	Step	Instructions	Results
5.	<b>Convert to virtual packages.</b>	<p>First, open the <b>Project Options</b> dialog box and make sure that the <b>Package Creation</b> property is set to <b>App-V 4.6 with AdminStudio</b>.</p> <p>Then, use the Application Conversion Wizard to convert the packages to App-V 4.x applications.</p> <p> <b>Note</b> • For instructions, see <a href="#">Performing a Conversion Using the Application Conversion Wizard</a>.</p> <p> <b>Important</b> • Make sure that you have already performed the steps in <a href="#">Configuring a Virtual Machine</a> before beginning this step.</p>	<p>When conversion is complete, each virtual package is listed in a tree structure under its original package on the <b>Packages</b> tab.</p> 
6.	<b>Test launch virtual packages.</b>	<p>Test the virtual packages by launching them on a virtual machine.</p> <p> <b>Note</b> • For instructions, see <a href="#">Performing Automated Testing of App-V Packages</a>.</p>	<p>Virtual packages launch successfully.</p>
7.	<b>Publish virtual packages to Application Catalog.</b>	<p>Import the new virtual packages into the Application Catalog.</p> <p> <b>Note</b> • For instructions, see <a href="#">Importing a Single Package File</a>.</p>	<p>The virtual packages are listed in the Application Manager tree under their associated Application.</p>  <p> <b>Note</b> • You may need to click <b>Ctrl + R</b> to refresh the Application Catalog tree.</p>





# Testing and Distributing Converted Packages

In this procedure, you will validate the converted packages, perform conflict analysis against other packages, resolve any issues found, and distribute the packages.

**Table 13 • Test and Distribute Converted Packages**

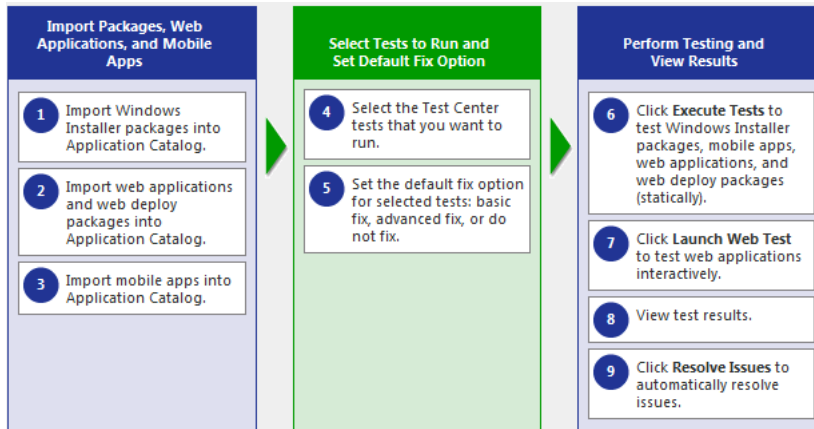
#	Step	Instructions	Results
8.	<b>Perform virtualization best practices testing.</b>	<p>By default, App-V best practices testing is performed during import (as described in <a href="#">Import Options</a>). To perform this testing manually, first select the <b>Test Center</b> tab in the Application Manager ribbon. Then, select one of the App-V packages in the Application Manager tree, and click <b>Execute Tests</b>.</p> <p>Messages appear in the Output Window.</p> <p></p> <p><b>Note</b> • For more information, see <a href="#">Performing Compatibility, Best Practices, and Risk Assessment Testing</a>.</p>	<p>When testing is complete, results are displayed on the <b>Summary</b> tab of the <b>Test Center Deployment Type View</b>.</p>
9.	<b>Perform conflict testing.</b>	<p>In Application Manager, perform conflict testing of the <b>Sample Application Source</b> App-V package against the <b>Sample Application Target</b> App-V package.</p> <p></p> <p><b>Note</b> • For instructions, see <a href="#">Testing for Conflicts Between Packages</a>.</p>	<p>Conflict analysis results are listed in the <b>Output</b> window and in the <b>Conflicts</b> view. An ACE207 error is detected:</p> <p>Package 'Sample Application Source' has a conflicting root Directory 'SampleAp.100' with package 'Sample Application Target'.</p> <p>Also, the error is listed on the <b>Application Conflicts</b> tab of the <b>Test Center Deployment Type View</b> for that package:</p> <div data-bbox="967 1367 1477 1692">  </div>

**Table 13 • Test and Distribute Converted Packages**

#	Step	Instructions	Results
10.	<b>Edit App-V packages (if necessary).</b>	<p>To resolve the error that was found during testing on <b>Sample Application Source</b> App-V package, select it on the <b>Catalog</b> tab of the Application Manager tree and select <b>Edit with Virtual Package Editor</b>.</p> <p>In the Virtual Package Editor's <b>General Information</b> view, change the <b>Root Folder Name</b> property to <b>SampleAp.200</b> and click <b>Save</b>.</p>  <p><b>Note</b> • For instructions, see <a href="#">Using the Virtual Package Editor</a>.</p> <p>Return to Application Manager and reimport the edited package.</p>	<p>The edited App-V package is imported into the Application Catalog.</p>  <p><b>Note</b> • When you rerun the conflict testing that you ran in the previous step, no error will be generated.</p>
11.	<b>Distribute to enterprise for user acceptance testing and production.</b>	<p>Distribute this tested App-V package to a <b>Network</b> location.</p>  <p><b>Note</b> • For instructions on how to distribute a package, see <a href="#">Distributing Packages to Network Locations</a>.</p>  <p><b>Tip</b> • Distribution Wizard also supports deploying applications to the System Center 2007 Configuration Manager, System Center 2012 Configuration Manager, and Citrix XenApp Server distribution systems. For more information, see <a href="#">Distributing Applications</a>.</p>	<p>The selected App-V package is copied to the specified network location, making it available to your enterprise.</p>

# Testing for Application Compatibility

The flowchart on the **Test for Application Compatibility** tab of the AdminStudio Start page outlines how to use Application Manager to test packages for compatibility with Windows 7, Windows 8, Windows 10, Windows Server 2008 R2, and Windows Server 2012 platforms, as well as to test web applications for compatibility with Internet Explorer (9, 10, 11) and Microsoft Edge.



**Figure 40:** Test for Application Compatibility Tab of AdminStudio Start Page

In this section, you will test some packages for operating system compatibility fix issues that were found. You will also test web applications, both statically and dynamically.


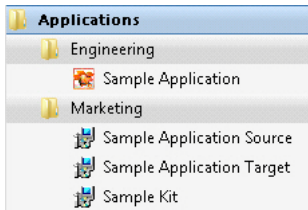
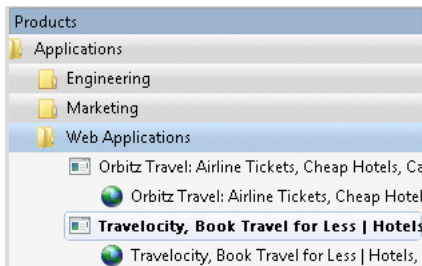
To perform application compatibility testing, perform the following steps:

- [Importing Packages, Web Applications, and Mobile Apps](#)
- [Selecting Tests to Run and Setting Default Fix Option](#)
- [Performing Testing and Viewing Results](#)

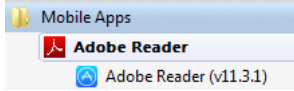
# Importing Packages, Web Applications, and Mobile Apps

In this procedure, you will load the packages to test and select the reports to run.

**Table 14 • Importing Packages and Web Applications**

#	Step	Instructions	Result
1.	<b>Import Windows Installer packages into Application Catalog.</b>	<p>For this exercise, we will test Windows Installer packages that were imported into the Application Catalog earlier in this guide in <a href="#">Importing Packages into the Application Catalog</a>.</p> <p> <b>Note</b> • For instructions on how to import a directory of packages into the Application Catalog, see <a href="#">Importing a Folder of Multiple Packages</a>.</p>	<p>The Application Manager tree should now be organized as follows:</p> 
2.	<b>Import web applications into Application Catalog.</b>	<p>First, open the <b>Import Options &gt; General</b> tab of the Application Manager <b>Options</b> dialog box, and clear the selection of the <b>Automatically Execute Tests After Import</b> option.</p> <p>Next, create a new group in the Application Manager tree named <b>Web Applications</b>.</p> <p>Then import the following web applications into the <b>Web Applications</b> folder, as described in <a href="#">Importing a Deployed Web Applications</a>.</p> <ul style="list-style-type: none"> <li>• <b>Orbitz</b> at: http://www.orbitz.com</li> <li>• <b>Travelocity</b> at: http://www.travelocity.com</li> </ul> <p>Because these web applications do not require a login to access, leave the <b>User name</b> and <b>Password</b> fields on the <b>Web Site Details</b> panel blank.</p>	<p>The web applications are listed in the Application Manager tree:</p> 


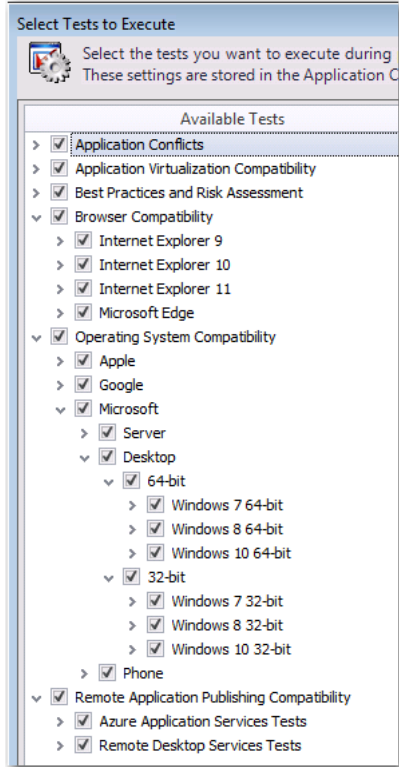
**Table 14 • Importing Packages and Web Applications**

#	Step	Instructions	Result
3.	<b>Import a mobile app into the Application Catalog</b>	<p>Create a new group in the Application Manager tree named <b>Mobile Apps</b>.</p> <p>Then, import an Apple iOS mobile app from the Apple App Store, as described in <a href="#">Importing Public Store Mobile Apps</a>.</p>	<p>The iOS public store mobile app is listed in the Application Manager tree.</p> 

## Selecting Tests to Run and Setting Default Fix Option

In this procedure, you will select the Operating System Compatibility and Browser Compatibility tests to run and set default fix options.

**Table 15 • Selecting Tests to Run and Setting Default Fix Option**

#	Step	Instructions	Result
4.	<b>Select the operating system and browser compatibility tests that you want to run.</b>	<p>Select the <b>Operating System Compatibility</b> and <b>Browser Compatibility</b> tests that you want to run, as described in <a href="#">Selecting Tests to Execute</a>.</p> <p></p> <p><b>Tip •</b> To speed up testing, it is recommended that you select just the operating systems and browser versions that are being used in your organization.</p>	<p>The <b>Operating System Compatibility</b> and <b>Browser Compatibility</b> tests that you want to run are selected on the <b>Select Tests to Execute</b> dialog box.</p> 


**Table 15 •** Selecting Tests to Run and Setting Default Fix Option

#	Step	Instructions	Result
5.	<b>Set the default fix option for selected tests: basic fix, advanced fix, or do not fix.</b>	<p>Some of the tests in the <b>Operating System Compatibility</b> and <b>Browser Compatibility</b> test group let you specify whether to perform a basic or advanced fix when you automatically resolve issues, as described in <a href="#">Setting Automatic Fix Preferences for Operating System Compatibility and Browser Compatibility Tests</a>.</p> <p>On the <b>Select Tests to Execute</b> dialog box, review the <b>Default Fix</b> section of several of your selected tests. For this exercise, it is not necessary to make any changes to the <b>Default Fix</b> settings.</p>	<p>A <b>Default Fix</b> selection is made for all <b>Operating System Compatibility</b> and <b>Browser Compatibility</b> tests.</p> <p><b>Default Fix:</b></p> <p>This choice will be used when resolving the issues that are identified by this test.</p> <p><input type="radio"/> Do not resolve this issue automatically.</p> <p><input checked="" type="radio"/> Apply the basic auto fix.</p> <p><input type="radio"/> Apply the advanced auto fix.</p>




## Performing Testing and Viewing Results

In this procedure, you will test packages and web applications for operating system and browser compatibility, view test results, and automatically fix issues.

**Table 16 •** Performing Testing and Viewing Results

#	Step	Instructions	Result
6.	<b>Click Execute Tests to test Windows Installer packages, mobile apps, and web applications (statically).</b>	<p>First select the <b>Test Center</b> tab in the Application Manager ribbon</p> <p>Then, select the <b>Applications</b> group in the Application Manager tree, and click <b>Execute Tests</b>.</p> <p></p> <p><b>Note •</b> For more information, see <a href="#">Performing Compatibility, Best Practices, and Risk Assessment Testing</a>.</p>	<p>Messages are listed in the Output Window. When testing is complete, the following message is displayed:</p> <p>Testing finished at: Thursday, June 23, 2016 - 13:47:04</p> <p>Tested 6 packages of 6.</p>

**Table 16 • Performing Testing and Viewing Results**

#	Step	Instructions	Result
7.	<b>Click Launch Web Test to test web applications interactively.</b>	<p>To interactively, dynamically test a web application, select a web application node in the tree and click <b>Launch Web Test</b>.</p>  <p><b>Note •</b> For more information, see <a href="#">Performing Dynamic Testing of Web Applications</a>.</p> <p>Application Manager launches the web application in your browser. Then, as you perform tasks and navigate around the web application, Application Manager records any warnings or errors that are encountered while using that version of the browser.</p> <p>When you have finished testing, close the browser window.</p>  <p><b>Tip •</b> You should always use dynamic testing when a web application requires a login to access.</p>  <p><b>Tip •</b> As each page loads, Application Manager begins testing. Links on each page do not become active until testing is complete on that page, so you may have to wait several seconds before proceeding.</p>	<p>Messages are listed in the Output Window. When testing is complete, the following message is displayed:</p> <p>Testing finished at: Thursday, June 23, 2016 - 13:58:08</p> <p>Completed testing package(s).</p>

**Table 16 • Performing Testing and Viewing Results**

#	Step	Instructions	Result
8.	<b>View test results.</b>	When testing is finished, view the test results by selecting a Windows Installer package or web application in the tree to open the <b>Summary</b> tab of the <b>Test Center Deployment Type View</b> .  Test result totals are listed in the <b>Operating System Compatibility</b> test group:	

Sample Application Target Test Center Deployment Type View						
Summary	Operating System Compatibility	Application Virtualization Compatibility	Remote Application Publishing Compatibility	Best Practices and Risk Assessment	Application Conflicts	
Test Category		Executed	Errors	Warnings	Auto Fix Available	Issues Suppressed
Operating System Compatibility		274	111	274	268	0
Windows 7 32-bit		41	15	1	0	0
Windows 7 64-bit		43	17	81	80	0
Windows Server 2008 R2		46	18	81	80	0
Windows 8 32-bit		46	19	44	43	0
Windows 8 64-bit		48	21	35	34	0
Windows Server 2012		50	21	32	31	0

Detailed test results are listed on the **Operating System Compatibility** tab:




Sample Application Target Test Center Deployment Type View						
Summary	Operating System Compatibility	Application Virtualization Compatibility	Remote Application Publishing Compatibility	Best Practices and Risk Assessment	Application Conflicts	
Severity		Message				
Category: Windows 7 32-bit		Count: 16				
0002 - Unmanifested Control Panel (.cpl) Files (User Account Control): The Windows Installer database is scanned for the presence of unmanifested Control Panel (.cpl) files.		Count: 1				
0003 - Unmanifested Control Panel Applications (User Account Control): The Windows Installer database is scanned for the presence of unmanifested Control Panel Applications. Scanned file extensions are: exe, dll.		Count: 1				
0008 - Unsupported DHTML Editing Control: The Windows Installer database is scanned for the use of DHTML Editing Control functionality. Scanned file extensions are: exe, dll, ocx.		Count: 1				
0009 - Microsoft Management Console (MMC) Snap-ins Data Execution Prevention: The Windows Installer database is scanned for the presence of Microsoft Management Console snap-in (.msc) files that are not DEP-aware.		Count: 1				
Total Issues: 385						

Click the Suppress (ON/OFF) button to suppress any issues that are not important to your organization.



**Note •** For more information, see [Viewing Operating System Compatibility Test Results](#) and [Viewing Browser Compatibility Test Results](#).

**Table 16 • Performing Testing and Viewing Results**

#	Step	Instructions	Result
9.	<b>Click Resolve Issues to automatically resolve issues.</b>	<p>Issues for which automatic fixes are available are identified by the Error With Fix or Warning With Fix icon:</p> <p> </p> <p>To automatically resolve all issues for which automatic fixes are available, select the <b>Applications</b> group node in the tree and click <b>Resolve Issues</b> in the <b>Test Center</b> tab of the ribbon.</p> <p></p> <p><b>Note •</b> For more information, see <a href="#">Performing Automatic Issue Resolution</a>.</p>	<p>Issue resolution begins, progress messages appear in the Output window, and Application Manager performs the following tasks:</p> <ul style="list-style-type: none"> <li>• <b>Reruns tests</b>—Application Manager reruns all of the selected tests to ensure that the issues that it is going to resolve still exist in the current version of the package and its associated transforms.</li> <li>• <b>Creates transform files</b>—To resolve issues, Application Manager generates fix transform files.</li> <li>• <b>Reimports packages</b>—Application Manager then automatically reimports each package and its fix transform files into the Application Catalog.</li> </ul> <p>When issue resolution and reimporting is complete, look at the <b>Test Center Group View</b>, <b>Application View</b>, or <b>Deployment Type View</b> of the package, application, or group that you tested. You will see that the Error With Fix and Warning With Fix icons have been replaced with the status icon with the next highest level (as described in the <b>Hierarchical Level of Status Icons</b> section of the <a href="#">About Status Icons</a> help topic) in that test category.</p>

